RELATIONSHIPS THAT HEAL: BEYOND THE PATIENT-HEALER DYAD IN

MAYAN THERAPY

Mónica Berger-González¹, Ana Vides-Porras¹, Sarah Strauss, Michael Heinrich, Simeón Taquirá and Pius Kruetli

Abstract

Biomedicine fosters particular styles of interaction and behaviors, with the therapeutic relationship seen as occurring between a doctor and patient. In contrast, where alternative modalities of healing are practiced, relationships go beyond a dyadic interaction and include wider social networks. In this article, we propose the existence of a 'therapeutic unit' in Maya healing practices in Guatemala that binds healer, wellness seeker, family and community members, along with the spiritual and natural realms, into a coherent system requiring all of these elements to achieve success. Drawing on interviews with 67 Maya healers, we describe healers' understanding of *raxnaq'il nuk'aslemal* (well-being), and show how these interactions activate wider networks that play crucial roles during treatments. We highlight how holism is expressed in relationships typical of indigenous healing systems, and how an appreciation of this is important for developing culturally appropriate health care provision systems.

Keywords: Guatemala, holism, indigenous therapy, Maya medicine, traditional healing

Running title: Relationships in Mayan Therapy

Media teaser: The healing bond is usually a dyadic doctor-patient interaction, yet in Maya medicine it develops within a Therapeutic Unit comprising also family, community, and the spiritual dimension.

Bionotes:

MONICA BERGER-GONZÁLEZ recently obtained her PhD at the ETH Zurich and a lecturer and associate researcher at Universidad del Valle de Guatemala. Her interests include Maya traditional knowledge, intercultural medical research, resilience building, and transdisciplinary studies.

Contact. E-mail: kawoq13@gmail.com & monica.berger@env.ethz.ch Address: ETH Zurich,

Natural and Social Science Interface Chair, Universitaetst.16, 8032 Zurich

ANA VIDES-PORRAS is a doctoral candidate at the Department of Anthropology of the University of Wyoming and lecturer and associated researcher at Universidad del Valle de Guatemala. Her research interests are centered on the interface between Psychology and Anthropology, particularly in how concepts developed in western psychotherapeutic research can be investigated in indigenous traditional healing settings.

Contact. E-mail: avidespo@uwyo.edu. Address: Facultad de Ciencias Sociales. Universidad del Valle de Guatemala. 18 avenida, 11-95 zona 15. Vista Hermosa III. Guatemala, Guatemala. 01015

SARAH STRAUSS is a Professor of Anthropology at the University of Wyoming, author of Positioning Yoga (2004) and editor of Cultures of Energy (2013, with Stephanie Rupp and Thomas Love) and Weather, Climate, Culture (2003, with Ben Orlove). Her research focuses on energy, climate change, water, and health issues.

Contact. E-mail: strauss@uwyo.edu. Address: Department of Anthropology. University of Wyoming. 1000 E. University Ave, Box 3431. Laramie, WY 82071

MICHAEL HEINRICH is the head of the research cluster biodiversity and medicines and of the Centre for Pharmacognosy and Phytotherapy at the UCL School of Pharmacy, London. His research is based on a transdisciplinary perspective integrating approaches from the natural and social sciences with an overall aim of tackling the fast changing global health needs focusing on the use of plant derived products.

Contact. E-mail: m.heinrich@ucl.ac.uk Address: Research Cluster Biodiversity and Medicines / Centre for Pharmacognosy and Phytotherapy, UCL School of Pharmacy, London, UK

SIMEÓN TAQUIRÁ is the head of the Maya Council of Healers by Birth His research interests lie at the interface of indigenous forms of medical knowledge and biomedicine, and the links to the Public Health system.

Contact, E-mail: simeontakira@gmail.com Address: Canton Central, Patzun, Chimaltenango, Guatemala.

PIUS KRUETLI is senior researcher and lecturer at the Department of Environmental Systems Science, and Co-Director of the Transdisciplinarity Lab at the ETH Zurich. His current research activities focus on the (fair) allocation of scarce medical resources, food system resilience, and nuclear waste management.

Contact. E-mail: pius.kruetli@usys.ethz.ch Address: ETH Zurich, Natural and Social Science Interface Chair, Universitaetst.16, 8032 Zurich

The doctor-patient relationship is a cornerstone of different medical practices. Attending a doctor's appointment in the biomedical realm carries a set of assumptions and defines behaviors in terms of duration of encounter, communication, and interaction patterns, inherent to a biomedical² framework. These behaviors respond to a conception of therapeutic relationships and a notion of health that is not universally shared. Multicultural settings challenge health care provision systems worldwide. Acknowledging patients' culturally defined expectations of the therapeutic process is essential to any successful intervention. In Guatemala, Maya patients' health seeking pathways often bring them into contact with public and private sector 'biomedical' health care practitioners (Cortez and Cerón 2008), who are rarely aware of elements of cultural significance to these patients. Enhancing an understanding of Maya traditional healing³ systems and Maya patients' expectations of therapeutic relationships may contribute to the official acknowledgment of the medical pluralism present in the country.

Many indigenous groups define health in terms of relationships between the individual, community, nature, and spiritual world (Erickson 2008; United Nations et al. 2009). This conception of health mirrors the relationships needed in the healing process, including those of the patient and healer, but also actors in other social, spiritual, and environmental realms. For Mesoamerican traditional medicine, equilibrium in these relationships maintains health and well-being among community members and the wider environment, including in the realms of the supernatural (Lipp 2001).

Maya medical practices have a history of over 2,000 years and have been the topic of considerable ethnographic research. Anthropological literature in this area includes descriptions of practices, beliefs, and social change (Hart 2008; Molesky-Poz 2006); comparisons of the Maya and biomedical systems (Goldman and Glei 2003); disease classification systems (Campos Navarro 1997); interactions within the public health system; and indigenous conceptions of efficacy of treatment, among many others (see Mosquera Saravia 2006).

In this article, we address indigenous aspects of health⁴ and related interactions from a Maya perspective, that goes beyond a dyadic patient-healer conception. This is a first step towards developing health care services that are both more culturally appropriate and more acceptable to Maya patients. This article is based on a study of the role of Maya healers, wellness-seekers, their families, and the larger social networks in the healing process, framed in the MACOCC Project (described in the next section). The term 'wellness-seeker' follows T. S. Harvey's (2013) thorough definition of a person seeking the help of a Maya healer; this reflects the notion that people are not 'passive objects' of treatment, but are rather actively looking to recuperate a sense of *raxnaq'il nuk'aslemal* (Kaqchikel: well-being in our life). The closest Maya equivalent to 'patient' is the Kaqchikel term *nuyawa'* (my sick person), but because the term is used in relation to a specific healer and wellness-seeker (i.e. *nuyawa' Na'an Rosa*, my patient Mrs. Rosa), we do not use this term here. Rather, we write 'wellness seeker'. We use the term 'patient' mostly when referencing other scholars.

Researchers working on psychotherapy and related fields have established that doctorpatient relationships shape patient care and that the therapeutic relationship is central to therapeutic effectiveness (Horvath 2001). As Schenck and Churchill (2012) state, a healer and patient must come to an agreement regarding the healing process, predicated on their shared belief in the healer's ability to heal and the patient's power to change. Individual notions of treatment and autonomy have proven insufficient in societies where individuals envision their personhood as part of a cohesive social group (Janzen 2002). Indigenous societies position illness as contextual, comprising individuals, relationships and the community, and in some instances, the spiritual realm (Frank and Frank 1991). Among Maya communities, healing is a collective process, which starts with the healer and the individual in which the illness is embodied, but transcends this dyad to incorporate wider social realms such as the family and community members and include relationships that encompass material, emotional, cognitive, and spiritual dimensions with different levels of interaction.

In this article, we employ a social support framework to analyze social interactions in three specific forms: Instrumental (resources such as money and time); Emotional (expressions of self-esteem, liking or concern); and Informational (giving advice and information) (Hulst 2008). These types of social support enhance a patient's sense of well-being (Uchino, Cacioppo, and Kiecolt-Glaser 1996). We present the concept of a therapeutic unit in Maya healing practices, and discuss the potential of this to bridge epistemic systems.

BACKGROUND AND METHODS

The MACOCC Project (<u>Maya and Contemporary Conceptions of Cancer</u>), launched in September 2010 by the Natural and Social Science Interface Chair (NSSI) of the Federal Institute of Technology Zurich (ETH Zurich), is a research initiative aimed at comparing indigenous Maya medicine and oncological approaches to human cancer. Maya medical knowledge on cancer was documented through ethnographic research with five ethnolinguistic groups in Guatemala (the Kaqchikel, Kiche', Mam, Mopan, and Q'eqchi'). Organized as a transdisciplinary process (Berger, Stauffacher, Edwards, Zinsstag, and Krütli 2015), academics

and the Maya had co-leadership and equal footing throughout the process, and specific topics of the study were negotiated according to the interests of both sides. Maya co-leadership was executed by the *Consejo Mayor de Guías Espirituales y Médicos Mayas* (High Council of Maya Spiritual Guides and Healers) and integrated by the *Kamal Bey* (Kaqchikel: High elder/guide) of five regional councils. The data presented here are based on ethnographic fieldwork including interviews with 67 Maya healers of different specialties, undertaken in Guatemala from January 2011 to December 2012.

The interview guide originally contained 106 questions divided into 11 topics including contextual information, demographic data, Maya cosmology principles, medicine subspecialty of the healer, knowledge of diseases, diagnosis methods, treatment, roles of different parties in the healing process, follow-up strategies and corrective measures, and an exploration of other concepts related to human anatomy and biology. Members of the Consejo Mayor participated in three workshops to enrich the interview guide, following a fluent conversational orientation in accordance with Maya expectations. This revision reorganized the topics, adding over 20 new questions; it was then carefully translated into five Maya languages by specialized Maya linguists. Further arrangements were made to schedule validation procedures, training workshops, and fieldwork implementation. Other methodological adjustments to comply with expectations of the Maya co-leaders included creating teams of two to four Maya interviewers where at least one member was a Kamal Bey or respected Ajq'um (Kaqchikel: specialist in medicines), a necessary strategy given that high-ranking traditional Maya healers (perceived in their towns as 'wise elders' sought for advice, having mastered healing procedures) would only consent to be interviewed about knowledge guarded for generations by their perceived equals. A total of 19 Maya people from the Consejo Mayor were trained to conduct the interviews and

adhere to both the standards defined by the Scientific Advisory Board (SAB)⁵ and a traditional 'Maya protocol' involving ritual and ceremonial procedures.

All interviews were recorded, transcribed and translated into Spanish by specialized Maya linguists. Analysis of the interviews revealed specific features of the healer-patient relationship as understood by the interviewed Maya healers. These were complemented by observations of 12 healing ceremonies and 72 healing consultations with wellness-seekers and their families.

Selection of Maya elders

Each regional council chose between 15-20 elders to visit, of whom 13 (a cosmologic number of high importance in Maya spiritual practice) in each region were selected to participate in the MACOCC project. Selection criteria included: a) community reputation; b) over 50 years old or having over 20 years of continuous practice of their specialty; c) practicing Maya medicine; d) highly involved in community affairs in their role of community leaders; and e) willing to openly participate in the council sessions and allowing recordings of their interviews (informed consent). When all regions had the consent of 13 elders, several traditional ceremonies were conducted to "keep the ceremonial/spiritual and material balance of the project" (Maya coleader Simeon Taquirá).

All interviews were revised by author MB and each regional council, with adjustments to best represent the cultural meaning of the accounts in Maya languages. A thorough description of this methodology is presented elsewhere (Berger et al., 2015). The Spanish transcripts were entered into a qualitative database, and from this, indicators were later chosen, quantified, and analyzed using SPSS 19. Other ethnographic data were summarized to compare results and

expand on the model presented here. This information was complemented by participant observation by MB over five years as she trained as *ajq'ij* (Kaqchikel: day keeper/spiritual guide) from 2005-2010, and by AV's fieldwork in 2013. The training to become an ajq'ij was directed by eight spiritual guides from Kiche', Kaqchikel, and Mestizo (Kiche' descent) ethnolinguistic groups. Having different Maya teachers from five geographical regions allowed for co-participation in ceremonies and consultations across healing traditions, aiding preliminary detection of shared elements in Maya medical practice.

RESULTS

The Maya healers – a descriptive account

Maya healers are respected members of their communities, believed to have special powers and knowledge to heal and help people in culturally pertinent ways (Consoli, Tzaquitzal Hernández, and González 2013). Important differences exist between groups, and although healers create and produce idiosyncratic healing systems based on their own personal experiences and practices prevalent in their ethnolinguistic backgrounds, "they partake of meanings, symbols, and practices that are common to all of Mesoamerica" (Sandstrom 2001:317). Hence, the diagnostic procedures and treatments are comprehensible between different groups. Important differences across healing traditions among the 67 interviewees are carefully addressed elsewhere (Berger, Gharzouzi, and Renner 2015).

Healers in the MACOCC study included 39 men and 28 women who practiced a wide variety of specialties. A single Maya healer might have one or more specialties depending on lineage and "gifts by birth" (specific qualities granted by the Creator) (see Table 1). Forty-eight healers in the interviewed group (72 percent) defined themselves as *Ajq'um*, healers by birth who

treated ailments of the physical body with natural remedies, drawing on specific knowledge of plant therapy. About 60 percent of the elders had at least a second specialty, with less than 10 percent having a third and fourth; in one case, a female healer held six different specialties. Fifty seven percent of the Elders reported they were Ajq'ijab' (Kaqchikel, Kiche', Q'eqchi', Mam: day keepers, plural form) (sometimes called Maya Priests in Spanish) (Hart 2008), implying that they use the Cholq'ij ritual calendar (Molesky-Poz 2006; Tedlock 1992), had specific training to connect with the spiritual world, and held ceremonial processes to heal diseases of supernatural origin.

Insert Table 1 here

All *Ajq'ijab'* are healers but not all healers are *Ajq'ijab'* (Campos Navarro 1997); other specialties do not involve spiritual elements. This results in varied practices and styles that, despite variations, share certain principles. The Maya world-view envisions health and disease holistically, spiritually, and in relation to equilibrium in relationships. A Maya person is part of the universe, integrated into the social, spiritual, and material worlds such that no clear distinction exists between related causes of illness (Molesky-Poz 2006). Therefore, spirituality provides a coherent framework for healing. In Latin America generally and Guatemala specifically, the mixture of Christian religions and indigenous spirituality has developed over five centuries. In the communities with which we were working, 66 percent of healers reported practicing Maya spirituality only; the remaining third also practiced a religion such as Catholicism or a variant of Protestantism, in addition to Maya spirituality (Tedlock 1992). These two systems do not constitute a dualistic opposition, but rather a syncretic blending of the old and the new, in which individuals reconcile the differences (Harris 2007).

The question of how much education in public institutions has influenced the Maya therapeutic process is important. Only eight percent of the interviewed healers had made it beyond elementary school and only 54 percent were literate. Formal school attendance was almost non-existent among most healers above 50 years old, making it difficult to acquire formal biomedical knowledge to influence their healing practices consistently. Maya practices are learned orally and passed down from teacher to student (Waldram 2013). This source of training was regarded as the most important one among all people interviewed. Only nine percent of the healers also learned from other sources such as books or self-experimentation.

The Maya faced institutionalized repression from the Spanish Conquest; today they comprise approximately half of Guatemala's population. Contemporary state policy has excluded Maya people from healthcare, education, social security, and equal economic opportunity. The Civil War that ended with the Peace Accords in 1996 took a severe toll on Maya communities, producing an even more fragmented society that forced many traditional healers and leaders to continue their practices underground (Coutin 2011; Oficina de Derechos Humanos del Arzobispado 1998). Despite this history of conflict and repression, "many Maya today remain in their traditional territories and their cultures, while changed, remain relatively robust" (Waldram 2013:199). Although many researchers have assumed the systematic replacement of Mesoamerican indigenous cultural systems (Astor-Aguilera 2011), ethnographic testimonies suggest both symbolic continuity and the permanence of Maya healing traditions (Huber and Sandstrom 2001). For this reason, although we acknowledge that important cultural changes have occurred among Maya communities in Mesoamerica, we embrace a position of a "native resiliency based on cultural logic that is composed not of abstract intellectual thought but the

day-to-day life of real people" (Astor-Aguilera 2011: 5). Core cultural elements can remain, even when transformed, due to cultural elasticity and fluidity.

A relational model of Maya healing

We present a cognitive model determining behavioral choices, showing the key elements a Maya healer will take into account in the therapeutic relationship with the wellness-seeker, from the early stages of understanding the condition, throughout the therapeutic process and the closing of the relationship. The elements of this model should be understood not as an overarching simplification of diversity in healing traditions, but as a synthesis of common elements in the medical practice of the healers, as generated by healers living in each area, all of who participated in synthesis workshops in their regions (see Figure 1).

Insert Figure 1 here

The squared base of this figure shows a system of shared belief among Maya healers participating in the study, representing the four constitutive elements of life (fire, earth, water, wind), cosmogonically known as 'the four corners of the world' (Kachikel: *kajtzuk*), associated with the four cardinal points, the four constitutive elements of humans (body, mind, emotions, spirit), and the four colors of corn. These four elements are believed to be present in every existing being, including minerals, plants, animals, elementals, and non-physical entities. This kajtzuk, also called the 'Maya squared cross', can be seen in the prehispanic Madrid codex (Vail and Aveni 2004) and archaeological sites, and has been described by many ethnographers (e.g. García, Curruchiche, and Taquirá 2009). These four aspects refer to the areas that any treatment must address. Accordingly, a) ailments of the physical body - red, b) the weakness of the mind and world of ideas - white, c) the fragility of the seat of the heart and feelings - yellow, and d) the inconsistence of spiritual expression – black, need to be treated simultaneously by the healer,

wellness seeker, and support unit (family and community) alike. At the center of these four elements, life is created as the Heart of Earth [Uk'ux Ulew] and Heart of Heaven [Uk'ux Kaj] meet, creating a continuum of interrelated beings, represented in the cylinder. Humans, at the base, are connected with all organizational levels. All beings, physical and non-physical (ancestors, guardians of elements and places, nawales – the twenty basic energies of the *Cholq'ij* calendar, etc.), are included.

The cylinder shows the four personhoods (entities possessing life or consciousness that interact with humans) participating in a therapeutic process: a) the level of the Creator-Shaper and all elements of the Ruk'ux Kaj; b) the Ruk'ux Ulew with all its elements and living creatures, including mountains, rivers, plants, and animals; c) the larger community and family (human constructions); and finally d) the individual experiencing discomfort. The internal tube within the cylinder represents the disease and corresponding treatment and interventions chosen by the healer. These interventions are designed to promote that the four units of personality flow into each other and interact, interconnecting and integrating them at various points of the healing process. In the words of a K'iche' Maya healer:

Animals and plants should be respected because they were created before humans, they are our older brothers. One way to give thanks for all that exists in life is through the ceremony. When people do not give the treatment plants and animals deserve, they get sick, because they are the older brothers, who are alive. That's why when you cut a tree you must ask permission as well as when you kill an animal. Mayan spirituality should not be forgotten because it brings all beings to overall communication and thanksgiving to the Creator and Maker of heaven and earth. Everything has a heart, everything has a spirit. If we affect Mother Nature it can also cause disease in a person's life, so it is to be

respected, to take care of the crops and forests. As miners are now digging the ground, what they are doing is to draw out the soul, the strength of the earth; they are harming human life and all living beings on earth ... that's why we get sick and there is poverty in the lives of people.

The interaction of these four levels follows a 'behavioral code' expressed in the Maya Kiche' concepts of *Nimb'el* (respect), *Sahilwanq* (coexistence), and *Tzalajb'il* (harmony), shown as the bases of the pyramid. Nimb'el is shown in every action of the person, including respecting one's elders, one's neighbors, the rules of the community, all living creatures, and all natural elements. Sahilwanq is expressed in the understanding that we must live in the space granted to each part of creation: "It means acting as if humans are not better than a tree or a bird and we understand all has its useful existence" (Taquirá 2013: 17). Tzalajb'il means being tolerant, using one's intelligence wisely to solve problems well, avoiding conflict and keeping harmony in the family and all spheres of existence. As seen in the nature of these principles, their proper application in relation to one's family, community, planet, and cosmos (including the spiritual realm) allows for the fourth and main principle of Maya life, *Ixbisbal li wan* (Q'eqchi'): Balance. Disease and illness are often understood by traditional healers as a disequilibrium in relationships, and interventions are aimed at re-establishing harmony.

Balance or equilibrium within the body ensures health and, as it progresses through the remaining spheres of the cylinder, it brings about the potential for healthy relationships in the family, community, and with the natural and spiritual world. Likewise, neglecting any of the three basic principles of the universal behavioral code results in imbalance and therefore disease. Among the healers interviewed, 85 percent mentioned co-existence as a main value to keep balance and health, 92 percent referred to respect and harmony, and 70 percent mentioned all

four concepts of the pyramid as intrinsic to understanding Maya healing practices. The most important aspect of this model is the understanding that no individual part has more importance than others, and all must be addressed properly to re-establish wellbeing (Raxnaqil nuk'aslemal) in the patient and their surrounding networks.⁶

Roles and responsibilities

The interviewed healers perform different activities aimed at bringing harmony, balance, and equilibrium back into the system, and so incorporate all the elements presented in Figure 1. An important part of their work revolves around counseling families and individuals. Spiritual rituals are built in a way that reassures the person that his/her illness is being taken care of and that healthy bonds between the patient and meaningful others (other people or spiritual beings) are being restored. Healing practices also involve the externalization of responsibility for complying and recovering (Maduro 1983). Consequently, Maya rituals and healing practices ideally require the attendance of family and community members, who provide social and emotional support to the individual and strengthen the bonds between the individual and the family/community network. The latter results in restoring balance lost due to illness, and reestablishes close relationships the failure of which may have caused the illness in the first place (Kleinman 2011). The active involvement and participation by family and community members, along with the healer and the patient, has been documented for different Maya groups, with the healing encounter extending well beyond the "practitioner-patient pair and replaced by models of participation closer to that of group consultation" (Harvey 2013:3). The involved parties have various responsibilities in the healing process (Table 2), as they contribute to a coherent approach that makes compliance viable and recovery possible.

Insert Table 2 here

The central actors in any treatment are those with specific responsibilities. Nearly all healers interviewed (98 percent) expect the participation of members of the nuclear and extended family, as well as neighbors and other community members when relevant. This participation is expected in the form of instrumental, emotional, informational, or spiritual support, or combinations of these (see Table 2). This participation, grounded on the idea of interdependence, takes many forms at the practical level and is seen to be important for treatment compliance to restore equilibrium. Although in some cases social support may not be possible and the healing process involves only the healer and the wellness seeker, spiritual support systems will still be present, as described below.

Emotional support helps the wellness seeker be positive throughout the treatment, provides a sense of companionship and hope, and prevents negative emotions like anger and resentment, fostering an atmosphere of tranquility. Instrumental/informational support consists of facilitating compliance with treatment by providing the economic means to do so, ensuring that the wellness-seeking person has sufficient time to prepare medicines, and has sufficient rest. For women, these adaptations include helping take care of her children. Spiritual support, a category not present in the biomedical classification of social support, includes participating in healing ceremonies, presenting offerings, summoning ancestors to aid in recovery, and praying for the health of the wellness seeker. It also includes changing behavior and providing restitution when this is seen to be necessary, as a Kiche' Ajq'ij describes:

When there are people who dedicate themselves to causing harm to other people, it is necessary to pray for them because they have negative feelings in their heart. If people

find out in advance that someone is trying to harm them, they can protect themselves with candles; however, if it is after they have been harmed, they have to pray for this person to stop harming others. This is the job of the Ajq'ij to help patients with advice and prayers to send the evil done to the seas so it will stay away from the life of the person suffering because of it. It is the responsibility of the patient and his family to have spiritual communication to ask for these problems to go away.

This kind of support could be classified as emotional; however, since it plays a central role in Maya traditional healing, where healer and wellness seeker believe that they are receiving the support of non-material personalities, we categorize this as spiritual support. Since disease may be caused by factors external to the wellness seeker, family members should also ask forgiveness for actions that may have caused the disease of their loved one in the first place.

If a baby is the one who is sick, the mother and the father have to reconcile with each other and be in harmony with life. Pray, make offerings to the Creator. When a person gets sick, the mother, the father, the wife, or the husband must be present so the patient doesn't feel lonely. When there is no support from the family, the healing process is slower, the patient feels sad, cries from desperation, is consoled by no one, and may even die. The cause of many diseases is the fighting between the couple or among the whole family that occur because of the bad attitudes of some of the members. Worry, fear, and concern are the cause of many diseases. The treatment must include the solution to these problems within the family; otherwise, part of the cause of the disease won't be eliminated and we would be treating only the symptoms (Kiche' Ajq'ij).

Faith – belief and confidence in the treatment – takes many forms and is an important component of the treatment. According to most interviewees, both the healer and the patient are responsible for having faith in the treatment. Other elements also have an important role. More than half of the healers (58 percent) emphasized shared spiritual beliefs, as their interventions were constructed from a particular understanding of how the cosmos works. Positive attitudes toward the treatment by the wellness seeker are also seen as prerequisites of the process, as his/her thoughts are linked to the possibility of healing.

The term *Ixbisbal li wan* refers to the balance that must be present in the micro- and macro-cosmos. Balance is defined as "learning to walk in the middle between light and darkness, keeping everything in its right measure" (Taquirá 2013:15).

Both men and women bring qualities that are considered as Gifts to comply with a mission on Mother Earth. They may be a Spiritual Guide, Medic at Birth, Midwives, Bonesetters, child therapists, etc. Spiritual practices must be in balance with the divine laws of our Creator and Maker and our ancestors, so men and women must remember to provide their daily sustenance, offering Ceremonies on specific dates of the Mayan Calendar to be in balance. Also being in harmonious coexistence with Uk'u'x Kaj, Heart of Heaven, to respect the work of all that exists in the cosmos.

Likewise respect all life that is in Uk'u'x Ulew, live with it in harmony, respect, and coexistence, because everything created has a reason for being, is alive and has useful existence. You should also appreciate the Uk'u'x K'aslemal, the Heart of Life of Being, because in it lives the spirit of the Creator and Shaper, as well as their material life. (Kaqchikel Council, validation and synthesis workshop 2013)

Ninety percent of healers regarded balance as a core element in their life and medical practice; all Ajq'ij reported this.

The patient's support system is especially important. Analysis of 72 consultations with one female Kaqchikel healer reveals that the healer-wellness seeker encounter incorporated different combinations of family and community members. From those observed, 41 percent included two or more people, one being the sufferer or a representative, and at least one other relative. In these cases, the disease was affecting one or all of the participants and the illness narrative was co-constructed. The healer asked the ill person or other participants such as a representative to express his/her symptoms and provide their opinions about the illness. This therapeutic practice of healing-at-distance (Harvey 2006) occurred in 54 percent of the consultations, including when the wellness seeker was not present for diagnosis and treatment. The geographically distant patients who received treatment without being present during the consultations ranged from one to five per visit to the healer. The medicinal plants and behavioral changes prescribed to treat the disease were communicated to the representative of the wellness seeker, who would pass the information along.

The same is true for spiritual treatment procedures. During the period from 2004-2013, a total of 62 Maya ceremonies were witnessed by MB and AV, of which 12 focused on healing a person with a particular physical ailment. In all cases but one, family members were present during the ceremony and assigned specific roles by the healer. In one case, a ceremony was performed without any other family or community member. According to the Kiche' healer treating him, "all of the (patient's) ancestors came to the ceremony when it was time to call *Ajaw Ajmaq*' (one of the 20 energies of the Cholq'ij ritual calendar), so they would all assist him in the healing process if he did what he was told." The following account of a treatment exemplifies the

importance of relational aspects in healing. It is based on three interviews, one with the Kaqchikel healer, another with the wellness seeker, and a third with two of her daughters (adapted from MACOCC team member Aguilar, 2014). To make obvious the elements of support in the account, we add in brackets the symbol (I) to indicate instrumental support, (F) for informational support, (E) for emotional support, and (S) for spiritual support.

Chus lives in the town of San Antonio Aguascalientes, Sacatepéquez, with her daughter Paquita. Her married sons and daughters live in an adjacent house. At 82 years of age, she started suffering from abundant vaginal discharge, fetid smell, and intense pain, which made her feel embarrassed and frightened. She waited four days before letting Paquita know what was wrong.

I believe she waited so long to tell us (F) because it was a vaginal problem. In our culture, there is great reservation in the topic of sexuality. Now it has changed, but when she was growing up everything was more restricted (Paquita).

Paquita and her sister Manuela took turns to take their mother first to a general medical practitioner in the capital and later to a gynecologist in Antigua Guatemala (F, I). A medical doctor performed a Pap smear test and later requested a biopsy:

This was extremely distressing for my mother because she never had this type of exam before, she was not given anesthesia and it was very painful. The exam did not reveal anything precise, but the symptoms continued. She was told the next biopsy required anesthesia ... she felt she could not handle such a procedure (Paquita and Manuela).

Although Nana Chus' family was raised Catholic, in 2010 they began a spiritual transition to Maya Spirituality, initiated by Paquita (F). Maria, an ajq'ij and a healer, guided them as a family. They consulted Maria on Chus' affliction. Maria had had a dream earlier that week that a

patient with cancer would visit her. When the women first visited her, Maria interviewed Chus and her daughters on all aspects of the disease and their feelings and ideas about it (F).

I consulted with the Abuelos (the spiritual dimension) and with the sacred fire to introduce my patient to them (S), and to see if they would aid me spiritually and with the plants she would need to be healed (Maria).

Maria established the family history to see if others had had cervical cancer or similar problems before. During the initial visit, the three women had eggs rubbed around them to trap and read the energy around them (S, F). Through this diagnostic method and in consultation with the sacred (ceremonial) fire, Maria determined it was an *Itzel Yab'il* (malignant disease) of a type biomedical doctors call 'cancer'. It is important to point out that cervical cancer is the second most common cancer suffered by women in Guatemala, and that there are extremely low screening rates among indigenous communities (Globocan Project 2015). Maria conversed with Chus' family (F), explaining details to Paquita and a daughter-in-law. The family decided to tell Chus she had a type of Itzel Yab'il, without specifying which one; they felt Chus had a greater chance of healing if she thought her disease was curable. At the beginning, Chus was ambivalent about plant remedies, but with her daughters' encouragement (E), decided to give them a chance. She took the doses on the days and at the times prescribed by Maria, who gave the family most of the plants with detailed instructions about how to prepare them (I). Manuela prepared the medicines, mostly in the form of teas and plant macerations, and Paquita made sure all ingredients were available, buying whatever was necessary (I). Maria also provided intense emotional and spiritual support to Chus and her family. They performed five Maya ceremonies in which her extended family was present (S).

For me it is extremely important to involve the whole family in cases like this one. With the support of the family, we make the natural treatment effective (E). This treatment requires a great deal of supervision and control, a lot of vigilance so that it gets prepared properly and is taken timely (I). She needs family support to not feel abandoned or depressed (Maria).

The spiritual treatment prescribed involved prayer by Chus and her family, lighting candles of specific colors on particular days of the Cholq'ij calendar, and five family ceremonies (S). In addition, on the first days of her treatment, Chus was responsible for sleeping with white bedclothes exchanged every morning, with a small container of water under her bed, and she had to follow a strict diet to restore balance in her body. Her family was in charge of providing economic and emotional support by taking her out for strolls, visiting her often, bringing foods as recommended and providing her with company, and praying with her and for her, among other things (E, I, S). Family members were also responsible for preparing all the medicines and participating in the healing ceremonies. Maria's responsibilities were diverse:

I had to be in constant communication with Chus, supervising that her medicine was being administered correctly and that she was following all my recommendations. Spiritually I had pray in the right days and prepare each ceremony. Depending on the energy of each day, I had to increase or decrease the dosage of the medicinal plant. It was a great responsibility; it was a serious and strong illness. I know the exact causes, spiritual and personal, of this disease, but when it has a supernatural origin like this one, I cannot share this confidential information (Maria).

The treatment was carried out mainly in Chus' house, but at other times at Maria's Maya Altar in her house. On two occasions, they visited sacred altars in Santiago Atitlán and San Andrés Itzapa to perform ceremonies (I, E, S). The spiritual world was also believed to have an active role in Chus' recovery:

The Abuelos actively participated in Chus' treatment. In my dreams, they guided and instructed me on how to heal her so the treatment would work. They showed me which types of plants to use and were also present during her recovery, helping her heal. Some spirits from her ancestors showed up during ceremonies to aid her. The Nawales and Abuelos shaped the treatment and were co-responsible for the healing. For example, Tijax, Iq', Ix, Kan and Keme' were present and supported her physical return to a state of balance after five ceremonies (Maria) (S).

Three months after having started treatment with Maria, Chus's vaginal discharge had stopped entirely and the pain had disappeared. Chus agreed to tell her story as a way of thanking Maria for having healed her.

DISCUSSION AND CONCLUSION

The therapeutic relationships in traditional healing systems are based on interdependence and rely on social networks, which turn the healer-patient encounter into a more collective, open, and inclusive event. This openness goes beyond the consultation, as it incorporates family and community members into the treatment process in terms of responsibilities and activities.

Social relationships in Maya traditional healing go beyond the dyadic links between individuals, to constitute a social structure comprising several participants. We theorize that

these networks provide the means for fulfilling the purposes of the treatment and for reactivating important social relationships. In our view, the healing process consists not of individual actors, but of a collective of interdependent actors who comprise what we call a therapeutic unit. In order for this unit to develop, several levels of interaction need to integrate in a process with a shared goal, which is to recuperate the health of the entire system. The therapeutic unit brings all participants into a single coherent system. This system rests in a symbolic platform of shared beliefs that sustain relationships and enhance the quality of social interactions. The presence of each element is equally important, strengthened by their interactions and the constant feedback each element provides to the system. The interactions between healer, wellness seeker, and family members are mediated through the treatment requirements and responsibilities, as well as the classification of the disease in terms of origin and prognosis. The interaction also implies particular commitments to the treatment, ranging from following directions and having a positive attitude in the case of the wellness seeker, to providing instrumental, informational, emotional, and spiritual support in the case of family and community members. The healer distributes the responsibilities and particular tasks among members of the network following the directions she or he gets directly from the spiritual realm. The activation of social networks presents an opportunity for members of the family and community to get treatment. In Maya traditional healing, the possibility of healing-at-a-distance allows family and community members who do not have direct contact with the healer to be diagnosed and treated.

In indigenous societies in which a human-centered, individualistic paradigm does not predominate, family and community networks take a prominent role in processes aimed at promoting health and wellbeing. Social support can take many forms, and networks are seen as an important determinant of health, with the embedding of patients and doctors in these networks

acknowledged within different healing modalities. A growing trend in the treatment of cancer has been to integrate emotional aspects of the patient's expectations and involvement of his/her family and belief system into medical care protocols (e.g. in psycho-oncology). The main difference is that 'healing' in biomedicine today is expected to take place as a result of specific physical treatments chosen by a medical specialist (surgery, chemotherapy, radiotherapy, etc.), regardless of the patient's beliefs or expectations of involvement of their support networks. In indigenous traditional healing, these networks are fundamental to the treatment. Our description of the therapeutic unit encompasses all participants in a treatment process, and transcends simple dyadic interactions.

The therapeutic unit provides a framework for understanding interactions outside the more typical biomedical health care system and offers a broader perspective of healing encounters in certain social contexts. In multicultural and indigenous contexts, this information may help public health practitioners to deliver health services in a more effective way; the wellness-seeking person is understood not only as an individual but also as an important part of a wider system. This is particularly important in Guatemala as the government seeks to extend the coverage of public health services in regions currently relying almost exclusively on traditional medicine (SEGEPLAN 2012). From this perspective, small changes in the way that treatments are prescribed could strengthen the therapeutic relationship and improve the outcomes. Such changes may include allowing family members to enter medical facilities, and assigning them small responsibilities within the hospital setting; allowing Maya spiritual guides to 'bless' chemotherapy medicines with the aid of the spiritual world before application; or allowing and promoting the co-construction of illness narratives by the patient and other family and community members. For psychologists, this model indicates the need for more research

regarding the establishment of therapeutic relationships in non-Western settings, not only to better understand the relationships within them, but also to propose new ways of intervention in multicultural settings.

For the Maya participating in the MACOCC project, a clear objective was to bring to biomedicine an increased understanding of the relational processes in Maya medicine, so that scientific clarification of these concepts could benefit local initiatives to push a political agenda to improve health service delivery in regions with Maya population. A full integration of systems, from the biomedical world to indigenous traditional healing systems and vice versa, is not an attainable or desirable goal. In the end, we can only strive for negotiation between the two, so that more culturally appropriate practices begin to replace current approaches promoting exclusion. By providing culturally appropriate health care, compliance and adherence to treatment are enhanced and the healing response is activated, which may improve effectiveness and reduce the costs of the medical care. Conducting research with traditional healers, rather than just on them, seems like the best strategy to enhance exchange between these two very different knowledge systems, bringing greater clarity and identifying promising 'bridges' between the two.

ACKNOWLEDGEMENTS

The authors wish to thank Prof. Dr. Roland Scholz for his contribution at the initial stage of the research project, as well as Dr. Michael Stauffacher for his various contributions to the research project, and Dr. Christoph Renner and Dr. Susan Dewey for their valuable comments during revision of the manuscript.

NOTES

1. The two first authors contributed equally to this paper and are to be regarded as first coauthors.

2. The term biomedicine is used to refer to cosmopolitan medicine as practiced today, with focus on the physical body of an individual patient and the physical cause of the disease, with strong ties to technology and focused on biological states and procedures (Erickson 2008; Galanti 2008).

3. Healing is used to refer to the initiation of a therapeutic process in a non-biomedical tradition regardless of any proof of 'curing' (a measurable biomedical effect).

4. Indigenous traditional healing is understood in this article as 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 illnesses (WHO 2002).

5. For the composition of this Scientific Board see http://www.uns.ethz.ch/res/models/macocc

6. The development of this model and the data that support it are described in Berger-Gonzalez et al. (2015).

7. These two aspects have been identified as major constraints to effective patient follow-up by the Cancer Institute of Guatemala (INCAN), a major partner in the MACOCC project.

REFERENCES

Aguilar, A.

2014 Salud pública y medicina tradicional: una mirada a la experiencia Maya del cáncer en Guatemala. Tesis de Licenciatura. Departamento de Antropología. Universidad del Valle de Guatemala.

Astor-Aguilera, M.A.

2010 The Maya World of Communicating Objects Quadripartite Crosses, Trees, and Stones.

Albuquerque, NM: University of New Mexico Press. =

Berger-González, M., E. Gharzouzi, and C. Renner

2015 Maya Healers' Conception of Cancer as Revealed by Comparison with Western Medicine. Journal of Clinical Oncology. DOI: 10.1200/JGO.2015.001081.

Berger-González, M., M. Stauffacher, J. Zinsstag, E. Peter, and P. Kruetli 2015 Intercultural research on cancer healing systems between biomedicine and the Maya of Guatemala: A transdisciplinary approach to induce reciprocal reflexivity in a multi-epistemological setting. Journal of Qualitative Health Research. DOI: 10.1177/1049732315617478

Campos Navarro, R.

1997 Nosotros Los Curanderos. 1st ed. México City, Mexico: Nueva Imagen.

Consoli, A.J., M.A. Hernández Tzaquitzal, and A. González

2013 Mayan cosmovision and integrative counseling: A case study from Guatemala. In

International Case Studies in Mental Health. S.Poyrazli and C.E.Thompson. Pp. 14–153.

Thousand Oaks, CA: Sage Publications.

Cortez, P. and A. Cerón

2008 Estamos enfermos, ¿qué hacemos?: síntesis analítica del informe de Alejandro Cerón.

Guatemala City, Guatemala: Amanuense.

Coutin, S.B.

2011 Falling Outside: Excavating the History of Central American Asylum Seekers: Falling

Outside. Law & Social Inquiry 36(3): 569–596.

Erickson, P.I.

2008 Ethnomedicine. Long Grove, Ill: Waveland Press.

Frank, J.D., and J. Frank

1991 Persuasion and Healing: A Comparative Study of Psychotherapy. 3rd ed. Baltimore, MD:

Johns Hopkins University Press.

Galanti, G-A.

2008 Caring for Patients from Different Cultures. 4th ed. Philadelphia, PA: University of

Pennsylvania Press.

García, A.P., G. Curruchiche, and S. Taquirá

2009 Ruxe'el Mayab' K'aslemäl. Raíz y Espíritu del Conocimiento Maya. Guatemala:

Dirección General de Educación Bilingüe Intercultural. Instituto de Lingüística y Educación de la Universidad Rafael Landívar. Consejo Nacional de Estudios Mayas.

Globocan Project

2015 Estimated Cancer Incidence, Mortality and Prevalence Worldwide in 2012. Geneva, Switzerland: World Health Organization. http://globocan.iarc.fr/Default.aspx.

Goldman, N., and D.A. Glei

2003 Evaluation of Midwifery Care: Results from a Survey in Rural Guatemala. Social Science & Medicine 56(4): 685–700.

Harris, J.

2007 "Someone Is Making You Sick": Conceptions of Disease in Santa Catarina Ixtahuacán. In Health Care in Maya Guatemala: Confronting Medical Pluralism in a Developing Country. W.R. Adams and J.P.Hawkins. Pp.27-43. Norman, OK: University of Oklahoma Press.

Hart, T.

2008 The Ancient Spirituality of the Modern Maya. Albuquerque, NM: University of New Mexico Press.

Harvey, T. S2006 Ipseity, alterity, and community: The tri-unity of Maya therapeutic healing. Zygon® 41(4): 903–914.

2013 Wellness beyond Words: Maya Compositions of Speech and Silence in Medical Care. Albuquerque, NM: University of New Mexico Press.

Horvath, A.O.

2001 The Therapeutic Alliance: Concepts, Research and Training. Australian Psychologist 36(2): 170–176.

Huber, B.R., and A.R. Sandstrom

2001 Mesoamerican Healers. 1st ed. Austin, TX: University of Texas Press.

Hulst, R.C.

2008 Introduction to Social Network Analysis (SNA) as an Investigative Tool. Trends in Organized Crime 12(2): 101–121.

Janzen, J.M.

2002 The Social Fabric of Health: An Introduction to Medical Anthropology. Boston, MA: McGraw Hill.

Kleinman, A.

2011 Medicine's Symbolic Reality: On a Central Problem in the Philosophy of Medicine. In A

Reader in Medical Anthropology: Theoretical Trajectories, Emergent Realities. B.J.Good, M. J. Fischer, S. Willen and M.J. DelVecchio Good. Pp. 85–90. Malden, MA: Wiley-Blackwell.

Lipp, F.

2001 A Comparative Analysis of Southern Mexican and Guatemalan Shamans. *In*Mesoamerican Healers. B.R. Huber and A.R.Sandstrom. Pp. 95–116. Austin, TX: University of Texas Press.

Maduro, R.

1983 Curanderismo and Latino Views of Disease and Curing. The Western Journal of Medicine 139: 868–874.

Molesky-Poz, J.

2006 Contemporary Maya Spirituality: The Ancient Ways Are Not Lost. Austin, TX: University of Texas Press.

Mosquera Saravia, M.T.

2006 Lógicas Y Racionalidades Entre Comadronas Y Terapeutas Tradicionales. Guatemala: Instituto de Estudios Interétnicos, Universidad de San Carlos de Guatemala.

Oficina de Derechos Humanos del Arzobispado

1998 Guatemala: nunca más: informe del Proyecto Interdiocesano Recuperación de la Memoria Histórica. Tegucigalpa, Honduras: INCEP.

Sandstrom, A.R.

2001 Mesoamerican Healers and Medical Anthropology. *In* Mesoamerican Healers. 1st ed.

B.R. Huber and A.R. Sandstrom, eds. Pp. 307–329. Austin, TX: University of Texas Press.

Schenck, D. and L. R. Churchill

2012 Healers: Extraordinary Clinicians at Work. Oxford, UK and New York: Oxford University Press.

Secretaría General de Planificación y Programación de la Presidencia –SEGEPLAN-

2012 Orientaciones Estratégicas de Política 2012-2014. Guatemala City, Guatemala: Gobierno de Guatemala.

Taquirá, S.

2013 Instrument validation workshop. April 21.

Tedlock, B.

1992 Time and the Highland Maya. Albuquerque, NM: University of New Mexico Press.

Uchino, B.N., J. T. Cacioppo, and J. K. Kiecolt-Glaser

1996 The relationship between social support and physiological processes: A review with

emphasis on underlying mechanisms and implications for health. Psychological Bulletin 119(3): 488–531.

United Nations, Department of Economic and Social Affairs, United Nations Permanent Forum on Indigenous Issues (United Nations), and Statistical Division

2009 State of the World's Indigenous Peoples. New York: United Nations.

http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=366 727.

Vail, G. and A.F. Aveni, eds.

2004 The Madrid Codex: New Approaches to Understanding an Ancient Maya Manuscript. Mesoamerican Worlds. Boulder, CO: University Press of Colorado.

Waldram, J.B.

2013 Transformative and restorative processes: Revisiting the question of efficacy of indigenous healing. Medical Anthropology 32(3): 191–207.

World Health Organization

2002 WHO Traditional Medicine Strategy, 2002-2005. Geneva: World Health Organization.