

# Indigenous Medical Tradition and Biomedical Tradition: A Historical Relation of Hegemony

**Arlene Iskra García Vázquez**

Researcher of Escuela Nacional de Estudios Superiores  
Unidad León Universidad Nacional Autónoma de México  
Blvd.UNAM 2011, Predio El Saucillo y El Potrero, Comunidad de los Tepetates  
León, Gto. C.P.37684

## ABSTRACT

The indigenous medical tradition is a system of knowledge, practices and beliefs about health-illness process, used by many social groups in Mexico, which has prevailed in a context marked by the epistemic, social and political hegemony of the biomedical tradition, a situation that has shaped its historical development, has impeded its recognition and appraisal as an effective and legitimate way to attend the health-illness process, and has been excluded from the official medicine. The above is the result of a historical process of long duration, which has its origins in the colonial era and was favored by the epistemic supremacy of science. This work analyzes the established relations, during the Spanish colonial era, between the indigenous and the Western medical traditions, to understand how that led to epistemic, social, political and institutional exclusion of the indigenous medical tradition. The historical stages of this study were established to identify the major events in the hegemony relationships among both traditions, which were analyzed based on the concepts of hegemony and tradition. The conclusion is that the hegemony relationships between the biomedical tradition and the indigenous medical tradition are the result of a historical and dynamic process of selection, reinterpretation and redefinition of cultural elements of the indigenous medical tradition, which involved the imposition of modern western culture's concept of the world and of the epistemic criteria of science, as well as the establishment of institutions responsible of the control and regulation of the indigenous medical practice.

**Keywords:** Indigenous medical tradition, Biomedical tradition, Hegemony, New Spain

## INTRODUCTION

Since ancient times human beings have developed knowledge, practices, and explanations about health and disease, which have been systematized and structured in medical systems. These medical systems are part of broader cultural traditions whose ontological and epistemological principles establish the context in which that knowledge, practices and explanations are understandable and meaningful (Osorio, 2001; Campos, 2000).

In Mexico many medical traditions coexist; two of them are the biomedical tradition and the indigenous medical tradition. The first one is the expression of scientific and technological advances and was developed within the framework of modern Western culture, a culture established on the exaltation of reason as the basis of all knowledge and the domain of nature as well as the actions and human behaviors, including social, economic and political organization.

The second tradition was configured from the worldview of the indigenous people that existed before the Spanish conquest, the Aztecs, Nahuas, and Mayans. What today is known as the

indigenous medical tradition is the result of a process of cultural syncretism of more than 500 years, between pre-Hispanic, Spanish and black African cultures.

The indigenous medical tradition is a constitutive element of the culture of the indigenous people in Mexico, a system of knowledge, practices and beliefs about health and illness, about its causes, diagnosis and treatment, which is based on their worldview and respond to a logical and epistemic validation criteria inherent to the sociocultural context in which are generated and applied (Gallardo, 2005; Flores, 2003; Castro, 1995; Mellado, 1994; Casillas, 1990; Anzures y Bolaños, 1988, 1983; Álvarez, 1987; Fabrega and Silver 197; Holland, 1963).

The indigenous medical tradition has prevailed in the culture of a large sector of the population, such as the indigenous, farmers and other social groups, in a context marked by the hegemony of modern Western culture, especially the biomedical tradition (Zolla, 2005; Jardón, 2004; Freyermuth, 1993; Pérez, 1991; Lozoya, 1979). This hegemony is manifested in the epistemic field but has political, social and legal implications, it has configured the historical development of the indigenous medical tradition, hindering its epistemic recognition and its socio-cultural assessment as a legitimate way to deal with the disease and restore health (Jiménez y Pelcastre, 2008; Ayora, 2002).

The hegemony of the biomedical tradition is the result of a historical process of long duration, which has its origins in the colonial era and was favored by the development of science and its consolidation as the only way to obtain valid knowledge of the world. That epistemic supremacy led to the exclusion and marginalization of all knowledge and practices that do not comply with scientific rationality criteria of empirical validation. This is the situation of the indigenous medical tradition, whose knowledge, practices and therapeutic resources (except the medicinal plants, as we will see later) are not recognized by the State and the relevant institutions in the field, as a valid and legitimate form of addressing the disease and restore health, therefore have been excluded from official medicine.

This situation has its origins in the colonial era with the establishment of intercultural relations between indigenous peoples and the Spanish, which went through several facets to become hegemony and subordination relations. The historical analysis of the relationship between indigenous medical tradition and the Western medical tradition, whose development would lead to the biomedical tradition, allows a better understanding of how the process of hegemonization of the biomedical tradition shaped the development of the indigenous medical tradition, through the relationships that were established and which led to the persecution, discredit and the political, institutional and epistemic exclusion of the indigenous medical tradition.

The objective of the present study is to analyze the relations between indigenous medical tradition and the Western medical tradition, which were established during the colonial era, in order to understand how the process of hegemonization of the biomedical tradition set the development of the indigenous medical tradition.

The analysis starts in the 16th century, when the two cultural traditions come into contact and because in this century some of the epistemic and political criteria were established, that shaped the situation of the indigenous medical tradition and remains, in essence, to the present day. It should be noted that the chosen historical periodicity seeks to identify those important events for the establishment of relations of hegemony among both traditions, rather than represent the chronological development of events.

The analysis is based on two controversial concepts: hegemony and tradition, making an analysis of these disputes is not part of our objectives. The concept hegemony and tradition are used as a heuristic resource for understanding of established relationships, in different facets, between the two medical traditions.

The work begins with the conceptual precision of hegemony and tradition, emphasizing the link between them. Subsequently, we will analyze the relations established between the medical traditions during the colonial period in the following aspects: 1) interest and curiosity; 2) hostility, persecution and denial and 3) re-appropriation and conceptual re-signification.

### **Hegemony and Tradition**

According to Gramsci, hegemony is an active and formative process of cultural integration, a process of domination and subordination through which certain cultural standards are internalized, which allows to maintain a particular social order (William, 1980).

Tradition is a key element to understand these processes of incorporation and cultural transformation. Tradition has been discredited historically, rationalism considered it to be a historical fact without value or relation with the present, as a source of prejudice, false and baseless ideas, as an obstacle to knowledge, that had to be overcome and even eliminate through the use methodical and disciplined in the reason (Oakeshott, 2000).

From other positions, such as the philosophical hermeneutics, the value historical and epistemic of Tradition was reclaimed. Hans-Georg Gadamer (2001) thinks that the tradition refers to the historical conditionings of the human being, of its actions, of the generation of knowledge, of the comprehension and interpretation of the world. Indeed, tradition provides to humans the ontological elements, the epistemic and axiological principles that make possible to know and understand other historical epochs and its ways of life, generate knowledge, establish values and actions, and be a part of the social, political and cultural life. In summary, the tradition is a condition of possibility of the world and their understanding, is a legitimate source of knowledge, of reason and authority. In this way, all knowledge is rooted to a tradition, both the biomedical knowledge as the knowledge developed by indigenous peoples. From another posture of social theory, Raymond Williams says that the tradition has an incomparable selective force, being "the clearest expression of the pressures and the dominant and hegemonic limits... the most powerful cultural incorporation form" (1980:129).

This selective force of tradition allows to tie it with hegemony. According whit William (1980) the tradition selects, from a past and a present, values, meanings, practices and representations, which can appear in society as different and even opposite. The selected elements are organized and interconnected establishing them as representative, while others are rejected or excluded.

This deliberate selection of the past and o present, says Williams, is presented, in certain culture hegemony, as "the tradition", as the "past significant", with the aim of legitimizing and constitute a determined social order and cultural identity (that of the dominant group), which entails a certain form of interacting with the world and each other, and a particular conception of rationality underlying these practices. That is how tradition, in its hegemonic sense, offers in practice a way of ratifying culturally and historically a certain social order.

Despite its selective force and its cultural incorporation attempts, tradition leaves out a wide range of activities and areas of human experience, practices and meanings, allowing the existence of other traditions and the possibility to consolidate some as an alternative and even an opposition to hegemonic tradition.

In this context, the hegemony of a medical tradition should be understood as the result of a historical and dynamic process of cultural incorporation. In other words, as a process of incorporation and redefinition of selected elements of the cultural tradition dominated, , a process that also involves the establishment of institutions responsible of ensuring the production and reproduction of values and cultural elements selected and of maintaining the order social that it's been established on them. This was what happened with the indigenous medical tradition as we will see below.

### **Indigenous Medical Tradition**

In pre-Hispanic times there were several indigenous traditions, the most developed in knowledge and organization was nahuatl medicine. The Nahuas developed a deep and comprehensive system of medical knowledge from the observation of nature and the experience gained in their interactions with their environment, but also from the medical experience they had accumulated from all the peoples they conquered. In relation to their organization they had several doctors depending on the pathologies and therapies they had (Anzures y Bolaños, 1988; 1983).

Following the arrival of the Spaniards and the introduction of the colonial regime, the social, economic, political and cultural organization of indigenous people underwent several significant changes. The indigenous medicine, predominantly Nahuatl was confronted with Western medicine introduced by the Spaniards, the relationships established between both went through several facets, of which Anzures y Bolaños (1983) mention the following:

- 1) a period of interest and curiosity from the Spaniards to know and study the indigenous medical practice, which results in the recognition of its therapeutic effectiveness and in the inclusion of the indigenous doctors in colonial hospitals;
- 2) a period characterized by the contemptuous, hostile and prejudiced attitude towards their magic-religious elements, labeled as sorcery and persecuted by the Holy Inquisition. To these two facets identified by Anzures y Bolaños, we can add:
- 3) a stage of conceptual reappropriation and reinterpretation of some indigenous therapeutic elements.

Below the three stages mentioned will be addressed, highlighting the factors that favored the conditions that led to the hegemony of the Western medical tradition and the following subordination of the indigenous medical tradition.

### **Interest and curiosity**

At the beginning of the Spanish Colonial era the indigenous medicine was predominant. Africans, mulattoes and Spaniards went to the indigenous doctors or used their therapeutic elements such as medicinal plants and other animal and mineral resources to solve their health issues. Aguirre Beltrán (1987) attributed such predominance to two reasons: 1) these therapeutic elements were cheap and readily available and 2) they enjoyed a prestige

following the effectiveness proven by the Spanish soldiers, including Hernán Cortés, after being healed from war injuries by indigenous doctors using plants and other minerals.

There are famous passages written by Cortés in his chronicles to the king in which he points out that the New Spain did not need European doctors since the native doctors were very efficient and their knowledge to treat diseases with herbal medicines, as well as their knowledge on surgery was superior, and even for certain diseases it was better that those of the Spanish doctors.

The effectiveness of the medicine and the knowledge that the indigenous doctors demonstrated on the medicinal properties of plants, on the way of preparing and administering the medicines and of the diseases that they could cure with these, sparked the interest and curiosity of the Spaniards to study and acquire an in-depth knowledge of this medical tradition. So they dedicated to investigate, collect and systematize all the existing information around indigenous medicine, which they expressed in their sumptuous works and chronicles. Among the most important are the *Codex de la Cruz-Badiano*, the *Primeros Memoriales*, the *Codex Matritensis*, the *Florentine Codex* by Bernardino de Sahagún, as well as the work of Francisco Hernández. All of them describe in detail the use of medicinal plants, their location, the diseases they cured with them, and that were common among the nahuas, they also speak about the body parts, the minerals and the animals, as well as the customs of the inhabitants of the New Spain.

These works are a testimony of the effectiveness of the indigenous medicine and their advances in some understandings and techniques in relation to the European medicine introduced by the Spaniards. In this regard Motolinía, in *Historia de los Indios de la Nueva España*, writes that "the indigenous doctors know how to apply many herbs and medicine ... many old and serious diseases that the Spaniards have suffered for long days without any remedy these Indians have healed," and on surgery he maintained in his *Memoriales* that indigenous surgeons, "were well prepared to heal the injured by acts of war" (quoted by Trabulse, 1984).

This reflects that during the first year of the Spanish conquest indigenous medicine was in a state of epistemic equality, both in social recognition and theoretical development, before the emerging Western medicine. The lack of Spanish doctors to establish and develop western medicine in the New Spain made both medicines not very different from each other. Anzures y Bolaños (1983) points out that the medicine of the Spaniards and the indigenous medicine were similar in the use of natural substances and in the influence that they assigned to the stars on the life and health of the man.

While in the Nahuatl medicine the health-disease process was immersed in their religious world view, generating representations and explanations within the realm of the supernatural, many diseases and their treatment were designed within a framework of purely natural elements involving the knowledge and cultivation of plants, the knowledge of animals and minerals for curative purposes, the knowledge of the various parts of the human body, as well as the physical changes or modifications to the interior of the body produced by divine intervention. The close observation of the circumstances in which the disease was generated and of its evolution favored the formation of a solid knowledge whose systematization and precision made that several authors consider it as a theory for the explanation on the causes of the disease.

Viesca Treviño (2000; 1990; 1986) has suggested the existence of parallels in some basic principles between the two medicines through which possibly established bridges of communication inter-traditional generating the syncretism that characterizes the traditional indigenous medicine in our days. Within their theory on sickness, the concept of hot-cold polarity has an important place, in which the health was the result of a balance of the hot and cold components of the human body; sickness was the result of the alterations in these components that man suffered. This concept had some similarity with the theory of the galenic-hippocratic theory of temperaments.

On the other hand, both medicines classified things in nature (in which they included food, diseases and their treatment) taking as criterion the physical properties identified in the objects, for example, the indigenous medicine used as a classification criterion the degree of heat or cold, while the Europeans took the degree of humidity and dryness that objects presented. These criteria to classify nature allowed the coincidences to stand out and to recognize certain diseases and treatments that allowed the syncretism between the two medicines.

The syncretism manifests in a theoretical level as well as a therapeutic one. The *Codex de la Cruz-Badiano*, was a book written by indigenous doctors, that despite introducing the elements of indigenous medicine separated from their magic-religious meanings and showing only their healing properties, allows the analysis of the typical features of indigenous medicine. The text shows that the indigenous doctors incorporated into their practice several conceptual elements of the disease from Western medicine.

These similarities led to the criteria for the comparison and evaluation of indigenous medicine in a similar theoretical context, allowing that its therapeutic efficacy was recognized and promoted by the Spaniards during the early years of the Spanish colony.

However, and as some authors have pointed out, for example Viesca (2001; 2000; 1990), there was a crucial difference between the two medical traditions: the hot-cold, wet-dry temperament theory represented a mere physical role, while for the Nahuas it represented a series of meanings and symbolism that had a meaning inside their worldview. This fundamental difference resulted in the further persecution and discrimination that the indigenous medical tradition suffered.

### **Hostility, Persecution, Denial and Contempt**

The study of the indigenous past showed the religious significance of all its cultural manifestations. When speaking about medicine, the expeditions conducted by Francisco Hernández in 1570 (quoted by Viesca, 2000), showed that the principles governing the indigenous understanding of health, sickness and their explanations, and forms of healing, were very different from the principles of the galenic medical tradition. The indigenous medical thinking was based on their non-Christian religious world view, in which diseases were sent by the gods Tezcatlipoca, Tlaloc and Xipe Totec among others, as punishment for the breach of any religious prescription. The influence of the stars and the action of sorcerers were also elements causing the disease (Anzures y Bolaños, 1983).

These magic-religious foundations were the origin and justification of the hostile attitude, the discredit, the persecution, the prohibition and prosecution before the Holy Inquisition which the indigenous medicine suffered during the 17th century and much of the 18th century.

Despite that, the medical tradition of the Spaniards was largely imbued with superstition and magic, since they had not left the hermetic, alchemist and astrological traditions and adhered to a Christian conception of the world (Trabulse, 1984).

Aguirre Beltrán in *Medicina y Magia* (1987) illustrates this situation very well, in it he writes that after only fifty years of the Spanish conquest the Spaniards established instruments as the Holy Inquisition with the objective of preventing the influence of the indigenous culture on the West. It was a process of counter acculturation which became more violent in the 17th century following the investigations that the Spaniards carried out on the indigenous culture and in particular on its medical tradition.

What was denied, disqualified and punished wasn't the indigenous medical knowledge by itself, but the magical and religious elements involved in the therapeutic processes of the indigenous doctors, considered aspects for eradication. They started by banning the use of hallucinogenic plants such as peyote, hallucinogenic mushrooms, the thorn apple, the picietl, the ololihqui, by considering them forms of communication with their gods.

The judgmental attitude towards the magic-religious elements also prevailed in the studies of the indigenous medicine that were made in the 17th century. In them the magical content and beliefs related to their ancient gods were associated with a diabolical, pagan and superstitious background. As Viesca (2002) has pointed out, it is clear in the texts of Bernardino de Sahagún that many medical practices were rejected by the Spaniards by considering them as grave sins that needed to be corrected and banned. To ban them it was necessary to know them in all its forms and identify them in all its manifestations, which is why Bernardino de Sahagún and other authors were devoted to study and describe these idolatrous practices (the rituals, the superstitions, the omens and idolatrous ceremonies). The clearest example of these studies is the *Tratado de las supersticiones y costumbres gentilicias que oy viven entre los indios desta Nueva España* (Treaty of superstitions and gentile customs that live today among the indians of this New Spain) written by Ruiz de Alacón in 1629.

According to Anzures y Bolaños (1988; 1983) the contempt and opposition towards the indigenous medicine came from the Spaniard's lack of understanding of it, as they associated their gods with the demon, also they considered that believing in dreams was a diabolical act and confused the healers with witches or wizards, without recognizing that indigenous people had epistemic elements to distinguish between a good and a bad doctor.

In this regard León Portilla argues that "... the Nahuatl cosmological thinking had come to distinguish clearly between the true explanations -on firm foundation- and that which didn't entered the state of mere credulity" (2006:84). The good doctors, wise men - were those who had a knowledge of things and their remedies (herbs, trees, roots, etc.) based on the experience and the achievement of a method, since before using their medication the examined and tested their curative effects in an experimental way. The good indigenous doctor was a wise man who knew things by experience: a *tlaximatini*, who alleviated the disease through massage and rearranging the bones, bleeding, purging, cutting and sewing the wounds of their patients. On the other hand the fake doctor mocked people, causing indigestion and worsening diseases, who knew evil herbs, used string for divination and in short based on his knowledge in magic and sorcery (León, 2006).

In this phase, the indigenous medical tradition was evaluated and judged based on the scientific-rational criteria that put the western medical tradition in epistemic superiority over the indigenous medical tradition. The Spaniards believed that many indigenous medical practices were the product of the ignorance in which these people were; ignorance associated with the lack of a scientific view of medicine and the world, and so they were ignorant of the causes of the disease as well as the virtue of real therapeutic substances and healing techniques poorly developed.

### **Reinterpretation And Conceptual Appropriation Of The Medical Knowledge And Therapeutic Elements**

The vast majority of the knowledge that the Spaniards had of indigenous medicine came from the natives who only spoke the Nahuatl tongue, so when translating this information into Spanish several problems arose because many Nahuatl terms had no meaning in Spanish, furthermore many diseases that existed among the Nahuas had no correspondence with the Spanish medicine of the 16th century, such as the generic diseases classified as aquatic fevers.

Carlos Viesca (2002) illustrates this problem with diseases that the Nahuas clustered as diseases associated with *alláhuac*. In the translations made by the Spaniards, the term *alláhuac* was interpreted as phlegm while in the Hippocratic medical tradition this referred to a mucus, without making clear that for the indigenous doctors for the term *alláhuac* had the same meaning as the term phlegm had for Europeans. The changes in the meaning of the Nahuas terms in its translation to Spanish, twisted the idea of diseases the Nahuas had.

On the other hand, when the Spaniards became aware of the magical-religious background of the indigenous medical knowledge they questioned its validity. They used their scientific methods to substantiate the effectiveness of indigenous medicines based on plants, minerals and animals, before incorporating them into their medical practice. Francisco Hernandez tested medicines checking its pharmacological efficacy and the diseases for which they were effective (quoted by Aguirre, 1987).

Their actions were not limited to substantiate the indigenous medical knowledge, they also classified and reinterpret it according to the principles of the galenic medical paradigm, stripping them of all significance attributed to it by the indigenous culture. They speak of diseases among the Nahuas but conceptualized from the galenic-hippocratic model. For example Arias de Benavides (1567) spoke of the gallic morbus; Francisco Bravo (1570) spoke of the tarbadillo, pleurisy, the critical days and the root of sarsaparille (quoted by Anzures y Bolaños, 1983 and Aguirre, 1987). *The Florentine codex*, written by Bernardino de Sahagún, the diseases and remedies used are arranged in a similar way to the European books, that is, starting with the diseases of the head and ending with the diseases of the feet (Viesca, 2002).

This procedure was applied to all the knowledge that the Spaniards had taken from the New Spain. All the discoveries and innovations would be adjusted to the models and governing principles of the European dominant paradigms. Thus imposing the European worldview and its paradigms to the indigenous worldview.

### **Control and regulation**

The therapeutic efficiency of the indigenous medical tradition led to its practice, to a certain extent, in a legal and institutional way. Some indigenous doctors were supported and recognized by the Spanish Crown to practice publicly in hospitals treating Spaniards and



Indigenous peoples. To this end, institutions were set up to control and regulate the indigenous medical practice.

Thus, soon after the conquest was completed, the Protomedicato was established, which consisted of a group of doctors sent by the Crown to issue permits to the indigenous doctors and give titles to the Spanish or Creole doctors who wanted to regulate their practice in the New Spain. In addition, as Viesca mentioned (2000), some indigenous doctors were prepared to examine other indigenous doctors who wanted to regulate their practice.

Every indigenous doctor who wanted a permit had to demonstrate, through an examination in the presence of the Protomedicato, their knowledge about medicinal plants and their ability to cure diseases with these natural therapeutic elements, without turning to magic-religious resources. In this way, the Protomedicato, along with the Holy Inquisition, kept any element of the non-Christian religion and worldview of the indigenous culture apart from the official medical practice.

According to Viesca (1990), these practices, resources and knowledge were conceived as technical knowledge that the Spaniards adapted to their theoretical frameworks and their Christian worldview of the world, on which the new social order was based. This knowledge allowed the indigenous doctors to continue practicing in an open and public way their medical tradition and to survive for 60 years after the conquest.

The Protomedicato established the criteria and standards that every doctor, indigenous or not, of the New Spain had to fulfill to be recognized as such, and thus separated the medical practice considered official from the non-official. The epistemic criteria that distinguished the valid knowledge, and therefore rational, around the disease, from the superstitions, idolatries and charlatanism, were also determined. These criteria were: 1) to be a technical knowledge 2) to eliminate from the public practice of medicine any therapeutic element that could be associated with superstitious practices.

These criteria also allowed distinguishing a good doctor from a bad one. The former ones were those who had knowledge of medicinal plants, their properties, curative uses, their location and how to prepare and give the medication. It was a knowledge they had obtained through observation and experience, and thus the Spaniards considered that it was a rational. The latter, the charlatans, were the ones that turned to superstitious practices and to other magical-religious practices.

The criteria used to distinguish between a good doctor and a bad one had fundamental political consequences, because only a "good" doctor, those willing to eliminate or hide their religious or mystic elements, were recognized and incorporated into the institutional model of health care, where official medicine was practiced. Whilst the doctors that based their healing on the intervention of these elements were classified as sorcerers, witches and prosecuted before the Holy Inquisition.

### **The apothecary**

The implementation of hospitals and universities in New Spain contributed to establish the asymmetric relations and hegemony between both medical traditions. The exclusion and marginalization of the indigenous medical tradition was accentuated by the emergence of apothecaries as the official and authorized place by the Protomedicato for the elaboration and distributions of medicines based on medicinal plants.

The apothecaries were established in New Spain at the end of the sixteenth century and the beginning of the seventeenth, and this fact changed the organization of the medical practice, separating it into two well-defined areas: diagnosis and therapeutics. One hand was the doctor who had the task of diagnosing the disease, and on the other hand was the apothecary who was in charge of preparing the medicines and filling the prescriptions issued by the doctor. The doctors could not perform the task of the apothecaries and vice versa (Avendaño, 1990).

The apothecaries were another form of exclusion of the indigenous doctors and their knowledge because they did not participate in the new organization of the medical practice or their participation was reduced to providing the medicinal plants. Indigenous doctors were no longer required. As Avendaño said, their knowledge was replaced by books describing many of the indigenous medical practices, along with Hippocratic prescriptions and the use of medicinal plants as therapeutic elements.

The operation of the apothecaries and the preparation of the apothecaries were under the control of the Protomedicato. This institution supervised that the medicines were properly prepared from the formulas of the pharmacy books brought from Spain. It also monitored that the drugs they sold were permitted and in accordance with the established norms, and that the apothecaries had the permissions that certified them as the only ones who could prepare medicines and sell medicinal plants.

Not everyone could be an apothecary, let alone open an apothecary. To do this, the person had to meet certain requirements: to know Latin, to have experience as an apothecary official, to be 25 years old, to present the baptismal certificate, and to present information of being a good citizen and customs, and to present a certificate of having practiced four years of pharmacy with an approved teacher. The apothecaries, doctors, surgeons and midwives needed a blood cleaning test to assure that the practice of medicine was in the hands of Spaniards (Quezada 1990).

The indigenous doctors were not acknowledged as doctors and their practice became illegal, they were not part of the process of therapeutic process of disease and health and their practice had to be performed under conditions of inequality. They needed a license issued by the Protomedicato to sell dry or fresh herbs, and these were usually granted to apothecaries. The Protomedicato regulated the people who were allowed to sell the medicinal plants, but also the type of plants that were allowed to sell, those plants were part of a catalog made by the same institution.

These criteria shaped the normativity that little by little created the political and legal conditions to institute the western medical tradition, which later on became the biomedical tradition, as the official medical tradition and thus it was recognized, supported and spread by the institutions established in New Spain, hospitals, university, and apothecaries.

The hospitals were implemented like the European hospitals and they were established as the places where official medicine was practiced. The university was the institution responsible for the education of physicians and for the production, reproduction and dissemination of the official medical knowledge. The apothecaries were the official institution where medicines were prepared. The joint action of these institutions determined the place and conditions for the practice and training of the official medicine, setting the indigenous doctors apart from it.

The rules established by these institutions hindered the development of indigenous medicine as part of the development of an autonomous culture, where indigenous groups decide on the use, production and reproduction of their cultural elements as means to maintain health (Bonfil, 1991). They conditioned the development of the indigenous medical tradition in its practice, formation and therapeutics.

The practice was conditioned because the hospitals were the public domain where official medicine was practiced; the training, because universities were recognized as the center of education and training of doctors, but also as the center of production and dissemination of medical knowledge to diagnose and treat disease. Finally, they conditioned the therapeutics since the medicines elaborated in the apothecaries by qualified personnel were established as official the treatment by the Protomedicato, and they used the procedures established in the medicine books brought from Europe.

The normative action represented by the three institutions derived from the organization, regulation and configuration of the official medical practice and, along with its counterpart, the unofficial medical practice. They also established the criteria that the doctors had to meet, for example, that their knowledge had to be based on the observation and experimentation and that their diagnosis and therapeutic could not include magic-religious-superstitious elements.

In other words, the epistemic distinction between what was later known as doctor and healer was established. The doctor treats patients in the hospital, and therefore has the support and legal recognition to exercise his profession. He receives education in universities and resorts to scientific knowledge to explain and treat diseases, whereas the healer treats in the private domain, at home or in other places outside the hospitals, they do not have an official education because they do not attend a university, and their diagnosis and therapeutics is partly based on their conception of the world that includes religion and supernatural events. It is worth mentioning that before the conquest, the nahuas used the word *ticitl* (that means doctor in Spanish) to name the people who cured diseases, but they did not use the term healer.

On the other hand, the functions of the doctor and the apothecary were well defined in the medical practice. The first one diagnoses and suggests a treatment, whilst the second one elaborates and supplies the medicines. This benefits the specialization of the doctor, because they are responsible of the knowledge of the causes of the disease and the diagnosis, leaving the therapeutics- and later on the diagnosis- to the development of science and technology that ended up being the pharmaceutical industry of our present.

These mechanisms set out the conditions that ended up constituting the western medical tradition as a hegemonic paradigm, holding the power and monopoly of health care and treatment, as well as the development of medicines. Xavier Lozoya (1982) thinks that this hegemony and power derived from an ideological and political view of struggling to establish, maintain and reproduce the hegemony of one culture over the other, in this case the Spanish culture over the indigenous, and not for the lack of effectiveness of the indigenous medicine to solve the medical needs of the people during the colony. In other words, the political and economic interests were the engines that generated the domination and subordination of the indigenous medicine and its culture, and consolidated the hegemony of the western medical tradition.

## CONCLUSIONS

The relations established between the indigenous medical tradition and the medical tradition introduced by the Spaniards, passed through several stages. The first one, consisted mainly of interest and curiosity, and this led the Spaniards to investigate and compile information about this medical practice. This interest and curiosity demonstrate the conceptual similarities between both traditions which favored the cultural syncretism that characterizes the current indigenous medical tradition. These similarities also helped to recognize the theoretical and conceptual advances of the medical tradition, as well as its therapeutic efficiency supporting their practice within the established institutions.

The study of the indigenous culture evidenced its -non Christian- religion, and the differences in world view stood out, as well as the theoretical and conceptual foundations of both medicines. This led to a stage characterized by hostility, denial and persecution, and the purpose was to eliminate any feature of the non-Christian world view of all cultural manifestation of indigenous groups. This led the Spaniards to verify and reinterpret, from their own conception of the world and under the conceptual schemes of the Galician-Hippocratic medical tradition, the information that the Spanish evangelizers had compiled. They selected the knowledge and information that could fit in their schematics and conception of the world, mainly the therapeutic elements on the knowledge of medicinal plants.

With these medical elements, renamed and selected by the Spaniards, a different medical tradition was established, presented as the predominant medical tradition in the colonial period; at the beginning, this tradition contained indigenous elements, with a different meaning. But the subsequent development and implementation of science and the world view constructed by it, ended up eliminating not only the indigenous cultural elements from the medical tradition, but it also ended up forcing them to exist apart from the official parameters emitted by colonial institutions such as hospitals, universities and apothecaries.

The process of homogenization also involved the establishment of institutions to control and the regulation of medical practice as well as ensuring the production and reproduction of values and selected cultural elements and maintaining the social order which they had established over them. In the New Spain the institutionalization of the Western medical scientific tradition covered several aspects: 1) the establishment of hospitals as the place that concentrated the healthcare through the official medicine; 2) the education and professionalization, through the Universities; 3) the scientification and technification of the practice and medical diagnosis and the production of medicines.

In this whole process of homogenization, it's observable the dominance and submission that was originally maintained as well as the armed repression of the indigenous mesoamerican culture would be held and would even justify later by the historical process that started in Europe and that spread all over the world, marked by the development and consolidation of science and its worldview. Under this new idea science is progress, the ultimate expression of human reason which can only lead to freedom while tradition is staying in the past. This context, aroused by the triumph of reason, would be used and supported by the institutions established by the state to build a different order. The decisions around how to use, reproduce and spread the cultural elements of the indigenous people, little by little were conducted by the medical institutions, the university and the apothecaries, using and abusing science politically and ideologically.

## References

- Aguirre, G. (1987). *Medicina y magia. El proceso de aculturación en la estructura colonial*. INI, México.
- Álvarez, L. (1987). *La enfermedad y la cosmovisión en Hueyapan Morelos*, INI-Libros de México, México.
- Anzures, Ma. C. (1988). "La medicina tradicional" en Carlos García Mora, Martín Villalobos Salgado (coordinadores), *La antropología en México. Panorama histórico. Vol. 4. Las cuestiones medulares (Etnología y antropología social)*, INAH, México.
- Anzures, Ma. C. (1983). *La medicina tradicional en México*, UNAM, México.
- Avendaño, J. (1990). "Boticas y boticarios de la Colonia" en Gonzalo Aguirre Beltrán y Moreno de los Arcos Roberto (coordinadores), *Historia general de la medicina en México. Medicina Novohispana. Siglo XVI*. UNAM, Academia Nacional de Medicina, México.
- Ayora, S. (2002). *Globalización, conocimiento y poder. Médicos locales y sus luchas por el reconocimiento en Chiapas*, Plaza y Valdés, México.
- Bonfil, G. (1991). *Pensar nuestra cultura*, Alianza, México
- Campos, T. (2000). *Antropología médica: contextos textos y pretextos: Propuesta teórico metodológica para el estudio de sistemas etiológicos terapéuticos coexistentes*. UNAM, México.
- Casillas, A. (1990). *Nosología mítica de un pueblo. Medicina tradicional huichola*. Universidad de Guadalajara, México.
- Castro, R. (1995). "Creencias en Salud: eclipse y embarazo", en *Salud Pública de México*, Julio-Agosto, Vol. 37 No. 4, pp. 329-338. Retrived from <http://saludpublica.mx/index.php/spm/article/viewFile/5853/6565>
- Fabrega, H. and Silver, D. (1973). *Illness and Shamanistic Curing in Zinacantan. An Ethnomedical Analysis*. Standford University Press, Standford, California.
- Flores, C. (2003) "Saber popular y prácticas de embarazo, parto y puerperio en Yahuío, Sierra Norte de Oaxaca" en *Perinatología y Reproducción Humana*, Enero-Marzo, Vol. 17 No. 1, pp. 36-52. Retrived from <http://www.medigraphic.com/pdfs/inper/ip-2003/ip031f.pdf>
- Freyermuth, G. (1993). *Médicos tradicionales y médicos alópatas. Un encuentro difícil en los Altos de Chiapas*. Instituto de Chiapaneco de Cultura-SIESAS, México.
- Gadamer, HG. (2001). *Verdad y método*. Ediciones Sígueme, Salamanca, España.
- Gallardo, J. (2005). *Medicina Tradicional P'urhépecha. Tsinapekua tuá ka iasí Anapu*. El Colegio de Michoacán-Universidad Indígena Intercultural de Michoacán. México.
- Holland, W. (1963). *Medicina Maya en los altos de Chiapas. Un estudio del cambio socio-cultural*, INI, México.
- Jardón, AM. (2004). *500 años de salud indígena*, Miguel Ángel Porrúa, México.
- Jiménez, S. y Pelcastre, B. (2008). "Parteras tradicionales y su relación con las instituciones de salud. Entre la resistencia y la subordinación" en *Rev Chil Salud Pública*, Vol. 12 (3):161-168. Retrived from <file:///C:/Users/Jose%20Francisco/Downloads/2205-8119-1-PB.pdf>
- León, M. (2006). *La filosofía Náhuatl: estudiada en sus fuentes*. UNAM, México.
- Lozoya, X. (1979). "Medicina tradicional: alternativa para la salud", *Estudios del tercer mundo*, Vol. II, No. 4 Diciembre. pp. 629-634.
- Mellado, V. (1994). *La medicina tradicional de los pueblos indígenas de México*. INI, México.
- Oakeshott, M. (2000). *El racionalismo en la política y otros ensayos*. FCE, México.
- Osorio, R. (2001). *Entender y atender la enfermedad. Los saberes maternos frente a los padecimientos infantiles*. Centro de Investigaciones y Estudios Superiores en Antropología Social-INI-CONACULTA, México.
- Pérez, R. (1991). "La medicina alópata y las otras medicinas" en *México Indígena*, marzo, no. 18, pp.16-20.
- Quezada, N. (1990). "El curandero colonial, representante de una mezcla de culturas" en Gonzalo Aguirre Beltrán y Moreno de los Arcos Roberto (coords.), *Historia general de la medicina en México. Medicina Novohispana. Siglo XVI*. UNAM, Academia Nacional de Medicina, México.
- Trabulse, E. (1984). *Historia de la ciencia en México. Siglo XVI*. CONACYT-FCE, México.

Viesca, C. (1986). "De la medicina indígena a la medicina tradicional", *México Indígena*, No. 9, Marzo-Abril.

Viesca, C. (1990). "Los médicos indígenas frente a la medicina europea" en Gonzalo Aguirre Beltrán y Moreno de los Arcos Roberto (coords.), *Historia general de la medicina en México. Medicina Novohispana. Siglo XVI*. UNAM, Academia Nacional de Medicina, México.

Viesca, C. (1992). "Veinte años de investigación sobre medicina tradicional", en Roberto Campos Navarro (comp.), *La antropología médica en México. Vol. I*. Instituto Mora-UAM, México.

Viesca, C. (2000). "La medicina novohispana" en Hugo Aréchiga y Luis Benítez Bribiesca (coords.), *Un siglo de Ciencias de la Salud en México*. FCE, México.

Viesca, C. (2001). "La práctica médica oficial" en Rodríguez Pérez Martha Eugenia y Xóchitl Martínez Barbosa (coords.), *Historia General de la Medicina en México, Tomo IV. Medicina Novohispana del siglo XVIII*. UNAM-Academia Nacional de Medicina.

Viesca, C. (2002). "Las enfermedades en la obra de Fray Bernardino de Sahagún" en León-Portilla (ed.), *Bernardino de Sahagún. Quinientos años de presencia*. UNAM, México.

Williams, R. (1980). *Marxismo y Literatura*. Península, Barcelona, España.

Zolla, C. (2005). "La medicina tradicional indígena en el México actual", *Arqueología mexicana*, Vol. XIII, no. 74, julio-agosto.