Científic@
Multidisciplinary Journal
e-ISSN 2358-260X

Ethnopharmacological Study In Faith Healers Of Colina Do Horto, In Juazeiro Do Norte-Ce, Brazil

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Info
Recebido: 06/12/2018
Publicado: 31/05/2019
DOI: 10.29247/2358-260X.2019v6i1.p68-86
ISSN: 2358-260X

Keywords:
Ethnopharmacology. Rituals. Horto

Abstract

Much of our information and knowledge today is derived from popular culture, including the use of medicines to treat diseases that affect humankind. Ethnopharmacological research allows the knowledge of traditional communities to contribute to scientific studies and vice versa, since it involves not only botanical and pharmaceutical knowledge but also anthropology aspects. Throughout the Ceará Cariri region, the use of natural resources in traditional healing methods is very evident. Accordingly, the aim of this study was to investigate the popular knowledge about the therapeutic use of natural resources by faith healers in Colina do Horto in Juazeiro do Norte, CE, Brazil. Informants who were self-proclaimed prayer people and faith healers, of both sexes, were subjected to semi-structured interviews consisting of guiding questions, which allowed us to achieve the proposed objectives. The data collected were related to the origin of the resources used in magical-religious procedures, part used, method of preparation, required amount, indications for use and contraindications. Analysis of data allowed the tabulation of the species so as to correlate all the variables studied. In addition, informant consensus factor and relative importance were determined. The informants had an average age of 66 years, and the majority were elderly, illiterate and female. Among the six species used in the healing procedures, the most prevalent was *Jatropha gossypiifolia*. Of the 53 species cited as complementary for healing, those especially used belonged to the families Lamiaceae and Asteraceae.

INTRODUCTION

The field of pharmacological research is constantly expanding knowledge, always searching for new drugs for various diseases. Much of the information and knowledge today is derived from popular culture, including the use of medicines to treat diseases that affect humankind (RICARDO, 2011).

Society has paid special attention to plant species for medicinal use, which are seen as a cultural and also biological resource. That is, in addition to symbolizing the rescue and reinforcement of cultural identity, they represent the primary access to health care in many communities, highlighting their genetic potential for the development of new drugs (SILVA, 2004).

Ethnopharmacological research allows the knowledge of traditional communities to contribute to scientific studies and vice versa, since it involves not only botanical and pharmaceutical knowledge but also anthropological aspects. In its stages, different areas of knowledge are needed so that there is interaction with various people and cultures (RABELO, 2011).

Thus, ethnopharmacology is interested in the study of traditional resources used as medicines. However, it is not limited to plants, considering all forms of use of natural resources by communities, also analyzing, jointly or separately, animals, minerals and even fungi. Also, it is important to clarify that this analysis comprises much more than the mere recording of these medicinal products, also including experimental evaluation (ALBUQUERQUE; HANAZAKI, 2006).

To make use of popular knowledge, however, we must recognize it as such, without prejudice, accepting it as an intellectual product and source of information (ELISABETSKY, 2003). In the social sciences, for example, healing as well the disease is not considered exclusively biological processes, where it is closely related to the cultural environment (VALE; GONÇALVES, 2011).

Moreover, even after all the evolution of scientific understanding that led to the qualification of health professionals and determination of modern methods of healing, popular knowledge and magical-ritual healing practices still remained widely used to combat disease and to minimize its symptoms (POLETTO; FLECK, 2011). This is mainly due to the high cost of synthetic drugs, coupled with the ease of obtaining natural products (VASCONCELOS; ALCOFORADO; LIMA, 2010). Thus, healing, prayers, teas and spells have become an effective solution to the health problems of the more disadvantaged classes (NERY, 2006).

In Brazil, there is a diversity of religions offering healing. Each has a wide repertoire of symbols and images to provide, through its rituals and within a vast context, cures for their followers (RABELO, 1994).

In much of the interior of the North and Northeast regions of Brazil, it is common the presence of ritual manifestations characteristic of popular Catholicism (PEDREIRA, 2009). In this traditional doctrine, which is particularly prevalent in the municipality of Juazeiro do Norte (FERREIRA, 2011), healing is basically related to faith and belief in "spiritual" efficacy (MINAYO, 1994), where prayer people and faith healers assume an essential importance (GOMES JUNIOR, 2006).

The use of natural resources in traditional healing methods is very common throughout the Ceara Cariri region, since the Araripe National Forest (FLONA) contains a very high biotic potential, able to lead to the development of various new drugs. However, there are no studies in the literature that correlate these two aspects, pharmacological and religious, in the municipality of Juazeiro do Norte, CE, Brazil.

Therefore, the aim of this study was to investigate the popular knowledge about the therapeutic use of natural resources by faith healers in Colina do Horto, in Juazeiro do Norte.

MATERIAL AND METHODS

Characterization of the study area and target people

The metropolitan region of Cariri is located in the south of Ceará State and is bordered by the states of Pernambuco, Piauí and Paraíba, encompassing the cities of Caririaçu, Farias Brito, Jardim, Missão Velha, Nova Olinda and Santana do Cariri, besides Crato, Juazeiro and Barbalha. These last three, considered the most important from an economic and cultural point of view, experienced a conurbation, forming an area called the Crajubar Triangle, which has a strong influence on the surrounding cities (IBGE, 2010). The area is privileged by its natural conditions, forming a valley of fertile land, influenced by the Araripe National Forest - FLONA (PEREIRA, 2005).

The municipality of Juazeiro has a population of 249,939 inhabitants and an area of 248,832 km^2 (IBGE, 2010). It is located 528 km from Fortaleza, and in its urban area, there is Colina do Horto, in which was erected the statue of Padre Cicero Romao Batista, an object of devotion for thousands of faithful.

In the immediate vicinity of the statue of Padre Cicero is the Horto community at an altitude of 377 to 550 m, where the vegetation varies between carrasco and high-altitude swamps. In this community is the study area of this work, the "Rua do Horto," which has 4,278 inhabitants and 2,100 families, approximately 1.71% of the municipality's inhabitants (RICARDO, 2011).

The target people of this study were composed of all those who were self-proclaimed prayer people, faith healers, herbal healers, shamans or similar, regardless of gender, age, race or religion, and who were living permanently in the Horto community. The research therefore had a census character, and informants were identified through the snowball technique (BAILEY, 1984 apud SANTOS, 2009; BALDIN; MUNHOZ, 2011).

Source: Google Maps. Aivalable in: <http://maps.google.com.br/maps?hl=pt-BR&tab=wl>.
FIGURE 1: Partial image of the Horto community (main street highlighted in yellow) and the statue of Padre Cicero (highlighted in red).

Survey of ethnopharmacological data

Information was obtained through the use of semi-structured interviews consisting of guiding questions, making it possible to achieve the proposed objectives. This type of interview was chosen to allow the informants to express themselves freely, without losing objectivity (AMOROZO; VIERTLER, 2010).

The data collected were related to the origin of natural resources used and indicated in magical-religious procedures, part used, method of preparation, required amount, indications for use and contraindications. Information was supplemented by the free list technique (ALBUQUERQUE et al., 2007).

Analysis of ethnopharmacological data

Analysis of the data allowed the tabulation of species to correlate all the variables studied (species, origin, part used, method of preparation, quantity, indications and contraindications). At this stage, we used techniques described in the literature and commonly used in similar works to calculate the informant consensus factor (ICF) and relative importance (RI) (TROTTER; LOGAN, 1986; BENNETT; PRANCE, 2000).

ICF was calculated using the formula described by Trotter and Logan (1986): $ICF = (Nur - Nt)/(Nur - 1)$, where Nur = number of use citations in each category and Nt = number of species used in the category. The maximum value that ICF can be is 1, and this occurs when there is total consensus among informants for the category in question.

RI, in turn, was calculated according to the formula described by Bennett and Prance (2000): $RI = NP + NBS$, where NBS = number of body systems treated by a given species (NBSS) divided by the total number of body systems treated by the most versatile species (NBSVS); NP = number of properties attributed to a given species (NPS) divided by the total number of properties

attributed to the most versatile species (NPVS). The maximum value that IR can be is 2, where the higher the value assigned to a species, the greater its importance among the population studied.

RESULTS AND DISCUSSION

We located ten faith healers in Colina do Horto, in Juazeiro. However, only eight participated in the survey, since two of them could not be interviewed: one did not take part in the study and the other was traveling during the data collection period.

The average age of the interviewees was 66 years, with a range of 52-80 years, indicating that, in general, the people studies were elderly. In addition, of the faith healers interviewed, five were women and three were men, indicating the presence of mostly females in Colina do Horto.

The fact that the informants were mostly elderly individuals can be attributed to the lack of interest from younger people to learn about chants and plants and their medicinal properties (SILVA 2007), so that this wisdom becomes exclusive to older people. As highlighted in the study by Oliveira and Trovão (2009), besides these informants being of advanced age, probably the fact that they have extensive experience with faith healing, as well as great knowledge gained from the cultural use of some plant species, leads the community to perceive them as keepers of the knowledge of healing rituals.

The predominance of female respondents can be explained, as seen in case report described by Gill et al. (2011), by the fact that women are more caring of others compared to men, leaving them to care for individuals of the community, including through prayers. Furthermore, the results of Neto (2008) are categorical in concluding that there are significant differences between genders regarding religion, since "women have higher values than men in the scope of religious experience."

All respondents in Colina do Horto claimed that they practices the Roman Catholic faith. However, two informants revealed that they also practiced other religions during healing rituals, contrary to the doctrine of the religion to which they belonged: one to spiritualism and the other to the Umbanda religion ("lower saints," as described).

It is interesting to note the encounter of different religions in Colina do Horto, because not only in Juazeiro do Norte, but in the country as a whole, this feature is striking.

Although Brazil is known worldwide as being a Christian nation, or mostly of Christian people, the history of religions in the country shows an interbreeding of Christianity with different religious cultures. The strong portuguese devotion, coupled with the weight of symbolism material that characterizes the indigenous culture, in addition to the rhythms of and beliefs African religions, are elements that easily stand out within a practice of the popular Christian faith (DALDOCE JUNIOR, 2011).

Also, there are numerous churches in Juazeiro, dedicated to uniting the devotees in the more traditional Catholic customs, but there is a

great opening for religious expression and ritual practices that move away from the exclusively Roman Catholic domain (MURA, 2008). One example is that of the figure Padre Cicero, even though a representative icon for local Catholics, is also considered a devotion entity in the area of Umbanda and an important leader among Kardecists (CORDEIRO, 2008).

When asked about their level of education, the majority of informants (six) declared not knowing how to read or write a single word, which according to concepts of the Brazilian Institute of Geography and Statistics - IBGE (2013), classified them as illiterate. In addition, the only informant who claimed to be able to read and write said he had never attended school, having learned what he knew on his own, which shows that access to school for these individuals was precarious or nonexistent.

However, it seems, that the elements of popular beliefs do not promote illiteracy, but rather the opposite: it is believed that the survival of many of the popular religious manifestations, such as the practice of faith healing, is due to the fact be cultural events very estimated by the laity at the same time are not recognized by the Church. That is, illiteracy hinders learning the doctrine of official Catholicism, preventing therefore the eradication of ritualistic practices of popular Catholicism (FARINHA, 2012).

Except for two informants who charged money for the procedures in general, faith healers in Colina do Horto did not charge for healing services, repeating the phrase in particular said by most informants, "the word of God is not for sale ".

In a study by Nery (2006), also with faith healers, the common thinking among participants in relation to charging was similar: "It is God who heals, so we cannot charge." Moreover, Moura (2011) makes it clear that a faith healer is defined as someone who heals through prayers, spells and natural remedies does not ask for something in return.

During the healing ritual (prayers), the faith healer makes use of prayers, which are characterized by requests for divine intercession for the individual who is being treated. It is noteworthy that none of the faith healers in Colina do Horto claimed to possess any kind of physical or spiritual gift to perform the cure. Many reported, "God is the one who cures," believing that the faith healer was only the means by which faith can lead to cure of the faithful.

Some faith healers in Colina do Horto (three) said that there was no prayer-disease relationship, that is, for the different ailments that afflict an individual, the prayers for divine intercession were the same and were generally composed of Our Fathers and Hail Marys. However, most of the informants (five) claimed the existence of such a relationship, so that, for each illness, there was a different prayer or a different saint to turn to.

Since the healing rituals had very peculiar characteristics, involving issues of religion and faith, most faith healers (five) considered sunlight as an essential part of the procedure, so they

preferred to pray for healing only during the day. Still, some (three) did not mind doing healing also at night.

An important characteristic of the healing ritual performed by faith healers in Colina do Horto was the use of natural resources during the procedure. The large majority of respondents (seven) used branches of plants commonly found in the Ceará Cariri. Such plants, according to faith healers, served to indicate whether or not the illness that the faithful had was spiritual in origin. If the disease in question was of spiritual origin ("breakdown", "curse" or "espinhela caída" – term used to describe body and spiritual weakness), the branch, which is torn from your tree or shrub while still green, would wither during the procedure, bringing immediate improvements to the faithful. If the disease did not have a spiritual origin, the branch would remain green during the procedure, healing efforts would not be limited to just prayers. A similar mechanism was described by Nogueira (2012), where after the healing procedure, "the branch would wither because bad things in the person would go away."

In a study conducted in the municipality of Cruzeta, RN (SANTOS, 2008), it was observed that to perform the healing ritual, faith healers used various complementary items (such as needle, thread and prayer cloth), including green branches. Souza (2009) also documented the use of green branches in healing rituals in Curitiba, PR. This demonstrates that this is not exclusive to Juazeiro do Norte or just the Northeast. It is something intrinsic to the practice.

When asked about which natural resource was routinely used in healing and what was its importance in the procedures, all informants of Colina do Horto who claimed to use the some natural resource, usually a branch, passing it in front of the faithful while praying during the procedure, and they also said that the species used was of little importance in the ritual. What in fact was very important was the faith of the individual being cured, so that, although some branch was needed during the healing procedure, any would do.

Still, some species were cited as those most commonly used in procedures, since they were easily found in quantity in the region. The species cited and their prevalence among different faith healers are found in Figure 2.

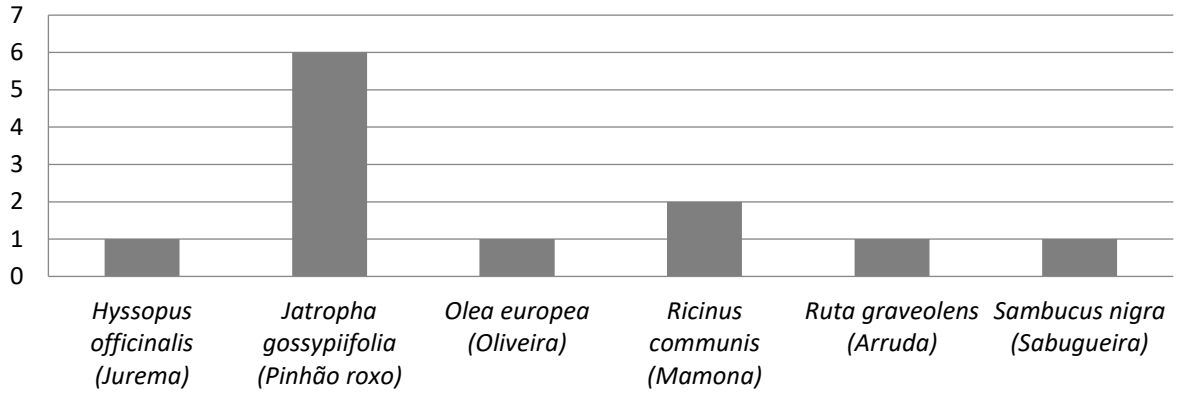

Figure 2: Natural resources used by faith healers in Colina do Horto, in Juazeiro do Norte – CE. Number of citations of natural products by different informants.

The species *J. gossypiifolia*, *R. graveolens* and *R. communis* were also cited by healers in the state of Paraíba (OLIVEIRA; COSTA JÚNIOR, 2011; OLIVEIRA, TROVÂO, 2009). *R. graveolens* and *J. gossypiifolia* were also described in a study conducted in the state of Amapá, as well as *S. nigra* (Silva 2002), which shows that there is some correlation between species used by faith healers of different states. The fact that all of them have not been found in different studies might be due to the distribution characteristics of each region.

In addition to using natural resources during the healing procedures, such as swaying branches of these species in front of the individual, most informants in Colina do Horto (six) recommended the use of natural plant products also in alternative ways (teas, baths and lozenges, for example). According to the faith healers, these methods were meant to complement the healing of people who did not have exclusively spiritual ills.

The informants described 53 plant species as natural resources, distributed in 36 botanical families, for 13 indications. Table 1 shows the RI of the species cited by informants in this study.

Notably, the species *Amburana cearensis*, *Guarea guidonia* and *Pogostemon patchouly* Pellet, besides the species with common names "Nanuscarda" and "Toré," had an RI value greater than 1.4 (the maximum value is 2).

Table 1: Relative Importance (RI) of the mentioned species in Colina do Horto, in Juazeiro do Norte – CE.

SCIENTIFIC NAME	COMMON NAME	FAMILY	RI
Acanthospermum hispidum	ARRETIRANTE	ASTERACEAE	0,58
Achyrocline satureioides	MACELA	ASTERACEAE	0,58
Allium fistulosum	CEBOLINHA	ALLIACEAE	0,58
Allium sativum	ALHO	ALLIACEAE	0,58
Alpinia zerumbet	COLÔNIA	ZINGIBERACEAE	0,58
Amburana cearensis	IMBURANA DE CHEIRO	FABACEAE	1,41
Annona squamosa	PINHA	ANNONACEAE	0,58
Averrhoa carambola	CARAMBOLA	OXALIDACEAE	0,58
Boerhavia diffusa	PEGA-PINTO	NYCTAGINACEAE	1,16

Buddleja brasiliensis subsp. Stachyiodes	CARRO-SANTO	LOGANIACEAE	0,58
Cardiospermum corindum	CHOCALHO DE VAQUEIRO	SAPINDACEAE	0,58
Catharanthus roseus	BOA NOITE	APOCYNACEAE	0,58
Cephaelis ipecacuanha	PAPACONHA	RUBIACEAE	0,58
Chenopodium ambrosioides	MASTRUZ	CHENOPODIACEAE	1,16
Citrus sinensis	LARANJA	RUTACEAE	0,58
Cleome spinosa	MUÇAMBÊ	CAPPARIDACEAE	0,58
Croton conduplicatus	QUEBRA-FACA	EUPHORBIACEAE	0,58
Dianthus caryophyllus	CRAVO DO REINO	CARYOPHYLLACEAE	0,58
Eschweilera ovata	IMBIRIBA	LECYTHIDACEAE	0,58
Eucalyptus spp.	EUCALIPTO	MYRTACEAE	0,58
Guarea guidonia	JITÓ	MELIACEAE	1,41
Heliotropium elongatum	CRISTA DE GALO	BORAGINACEAE	0,58
Hymenaea courbaril	JATOBÁ	FABACEAE	0,58
Hyssopus officinalis	ALFAZEMA DE CABOCLO	LAMIACEAE	0,58
Illicium verum	ANIL ESTRELADO	MAGNOLIACEAE	1,16
Licania rigida	OITICICA	CRISOBALANACEAE	0,58
Malva sylvestris	MALVA	MALVACEAE	0,58
Matricaria recutita	CAMOMILA	ASTERACEAE	0,83
Maytenus rigida	BONOME	CELASTRACEAE	0,58
Mentha gentilis	ÁGUA-DE-ALEVANTE	LAMIACEAE	1,16
Mentha sp.	HORTELÃ	LAMIACEAE	0,58
Morinda citrifolia	NONI	RUBIACEAE	0,58
Ocimum basilicum	ALFAVACA	LAMIACEAE	0,58
Piptadenia colubrina	ANGICO	MIMOSACEAE	0,58
Pirus malus	MAÇÃ	ROSACEAE	0,58
Plectranthus barbatus Andrews	BOLDO	LAMIACEAE	0,58
Plectranthus ornatus Codd	BOLDO DA CHINA	LAMIACEAE	0,83
Pogostemon patchouly Pellet	PATCHOULI	LAMIACEAE	2,00
Pseudobombax marginatum	IMBIRATANA	MALVACEAE	0,58
Punica granatum	ROMÃ	PUNICACEAE	0,83
Rosmarinus officinalis	ALECRIM	LAMIACEAE	1,16
Sambucus nigra	SABUGUEIRA	CAPRIFOLIACEAE	0,58
Schinus terebinthifolius raddi	AROEIRA	ANACARDIACEAE	0,58
Scoparia dulcis	VASSOURINHA	SCROPHULARIACEAE	0,58
Sideroxylon obtusifolium	QUIXABA	SAPOTACEAE	1,16
Solanum melongena	BERINJELA	SOLANACEAE	0,58
Talisia esculenta	PITOMBA	SAPINDACEAE	0,58
Terminalia catappa	CASTANHOLA	COMBRETACEAE	0,58
Turnera ulmifolia	XANANA	TURNERACEAE	0,58
Ximenia americana	AMEIXA	OLEACEAE	1,16
-	NANUSCARDA	-	1,66
-	TORÉ	-	1,75
Zingiber officinalis	GENGIBRE	ZINGIBERACEAE	0,58

"Nanuscarda" and "Tore" do not have scientific names because they were not found in specific sites

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There are reports in the literature *A. cearensis* possessing anti-inflammatory, analgesic, bronchodilator and antispasmodic activities (ALMEIDA et al., 2010), which is indicated by the faith healers of Colina do Horto for the treatment of abdominal cramps, migraines and respiratory problems in general.

G. guidonia has been described in the literature as having *in vitro* cytotoxic activity against the protozoa *Leishmania* sp. and *Trypanosoma cruzi* (WENIGER et al., 2001). In this study, this species was indicated for the treatment of gastrointestinal symptoms (pain, diarrhea, malaise). The similarity may be associated with other parasitic infections, also caused by protozoa, reaching the gastrointestinal tract.

P. patchouly has been demonstrated to have powerful antimicrobial activity against *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Salmonella typhi*, *Klebsiella pneumoniae* and *Vibrio parahemolyticus* (SENTHILKUMAR; KUMAR; PANDIAN, 2010). In this study, informants described for natural resource in question, the use for the treatment of pain and discomfort as well as for cardiovascular and nervous system problems.

Table 2 shows the ICF for the 13 indications mentioned. In this study, according to the consensus of the respondents regarding the potential of the plant species mentioned, the disorder with the highest consensus was the category of skin irritation and ulcers (healing effect), followed by cardiovascular system, nervous system and respiratory system diseases. These values indicated that these categories were the most important to the community, from a cultural point of view.

Table 2: Informant Consensus Factor (FCI) of therapeutic indications mentioned in Colina do Horto, in Juazeiro do Norte – CE.

THERAPEUTIC INDICATIONS	FCI	Nur	Nt
SKIN IRRITATION AND ULCERS	0,66	04	02
CARDIOVASCULAR SYSTEM DISEASES	0,50	05	03
NERVOUS SYSTEM DISEASES	0,50	03	02
RESPIRATÓRY SYSTEM DISEASES	0,39	39	24
GENITOURINÁRY SYSTEM DISEASES	0,33	07	05
GASTROINTESTINAL SYSTEM DISEASES	0,26	16	12
PAIN AND INFLAMMATION	0,18	12	10
CÂNCER	0,00	03	03
CHOLESTEROL CONTROL	0,00	01	01
DIABETES	0,00	01	01
BLOOD AND HEMATOPOIETIC SYSTEM DISEASES	0,00	01	01
FEVER	0,00	04	04

Nur: number of use citations in each category. Nt: number of species used in the category.

In a study conducted in the municipality of Arapiraca, AL (LÓS; BARROS; NEVES, 2012), ICF analysis also found skin disorders and respiratory system diseases as being most

important in that community. In the municipality of Ituiutaba, MG, the categories of injuries and wounds and respiratory diseases, although also of great importance in that community, were listed in third and fourth place, respectively, just after emotional disturbances (depression) and menopause (ALVES; POVH, 2013). In a study conducted in the state of Rio de Janeiro, in turn, nervous system disorders also followed by respiratory system disorders, had the high ICF values, only behind the category of infectious and parasitic diseases (CHRISTO; GUEDES- BRUNI; FONSECA-KRUEL, 2006).

On analyzing the number of plant species by botanical family, cited by the faith healers of Colina do Horto, it was noted that the most prevalent families were Lamiaceae (eight species) and Asteraceae (three species), followed by Alliacee, Fabaceae, Malvaceae, Rubiaceae , Sapindaceae and Zingiberaceae (two species each).

In a study conducted in rural communities of Mutuípe, BA, the botanical families Asteraceae and Lamiaceae were also the most prevalent among the species cited by informants (SILVA et al., 2010). In Tubarão, SC, according to a study in the neighborhoods Dehon and Morrotes, the families Asteraceae and Lamiaceae were also those with highest occurrence of species in the community (NIEHUES et al, 2011.). In a study performed in Pará, among the medicinal plants sold in a public market, species of the family Fabaceae were the most noted (LIMA; RABBIT-FERREIRA; OLIVEIRA, 2011). Data collected in a public market in Iraq, in turn, also revealed that the families Fabaceae and Lamiaceae, besides Apiaceae, were the most prevalent among medicinal plants sold in the region (MATI; BOER, 2010).

Trotter and Logan (1986) reported that species of families such as Lamiaceae, rich in essential oils, are culturally important to use. Furthermore, the families Lamiaceae Asteraceae, Malvaceae, and Fabaceae, among others, dominate the list of exotic medicinal plants (BENNETT; PRANCE, 2000).

Probably the fact that species the same family have been described by different informants in different places is related to the process of cultural selection of these plants.

It is known that the treatment of sick individuals by the first healers included preparations made with local medicinal herbs, so called "magic potions." Although there are the hypotheses that the herbs were chosen because of certain properties such as shape, color, odor, or rarity, it would not easy for such theories to account for a driven process. In contrast, the most obvious explanation is that the use of any herb or mixture has been the result of various experiments based on trial and error over many generations (COSTA, 2008). These attempts and coincidences allowed the qualities of plants to be incorporated into human knowledge, so that the origin of this understanding is intertwined with the history of humanity itself (ALMEIDA, 2011).

Table 3 shows all the natural products indicated by the informants for supplementary use (after prayers/healing procedure), their method of

preparation, parts used, indications and contraindications.

Table 3: Natural products indicated by faith healers in Colina do Horto, in Juazeiro do Norte – CE.

SCIENTIFIC NAME	COMMON NAME	PARTS USED	METHOD OF PREPARATION	INDICATIONS	CONTRAINDICATIONS
Acanthospermum hispidum	ARRETIRANTE	ROOT	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Achyrocline satureioides	MACELA	LEAVES	TEA	STOMACH ACHE	-
Allium fistulosum	CEBOLINHA	ROOT	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Allium sativum	ALHO	ROOT	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Alpinia zerumbet	COLÔNIA	LEAVES	TEA	CARDIAC ARRHYTHMIA	-
Amburana cearensis	IMBURANA DE CHEIRO	BARK OR SEED	BATH, SYRUP OR TEA	COLICS, RESPIRATORY SYSTEM PROBLEMS, HEADACHE	-
Annona squamosa	PINHA	LEAVES	TEA	STOMACH ACHE	PREGNANT WOMEN
Averrhoa carambola	CARAMBOLA	FRUIT	JUICE	CANCER	-
Boerhavia diffusa	PEGA-PINTO	ROOT	SYRUP OR TEA	RESPIRATORY SYSTEM PROBLEMS, OBSTRUCTION IN URETHRA	-
Buddleja brasiliensis subsp. Stachyiodes	CARRO-SANTO	ROOT	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Cardiospermum corindum	CHOCALHO DE VAQUEIRO	ROOT	SOAK IN WATER	PROSTATE CANCER	-
Catharanthus roseus	BOA NOITE	FLOWER	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Cephaelis ipecacuanha	PAPACONHA	ROOT	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Chenopodium ambrosioides	MASTRUZ	LEAVES	SYRUP OR LIQUEFIED WITH MILK	RESPIRATORY SYSTEM PROBLEMS, GASTRIC ULCER	-
Citrus sinensis	LARANJA	BARK FRUIT	TEA	HEADACHE	-
Cleome spinosa	MUÇAMBÊ	ROOT	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Croton conduplicatus	QUEBRA-FACA	BARK	TEA	GASTRITIS	-
Dianthus caryophyllus	CRAVO DO REINO	SEED	TEA	HEADACHE	-
Eschweilera ovata	IMBIRIBA	SEED	TEA	STOMACH ACHE	-

Eucalyptus spp.	EUCALIPTO	LEAVES	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Guarea guidonia	JITÓ	BARK	TEA	DIARRHEA, PAIN, MALAISE	-
Heliotropium elongatum	CRISTA DE GALO	ROOT	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Hymenaea courbaril	JATOBÁ	ROOT OR BARK	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Hyssopus officinalis	ALFAZEMA DE CABOCLO	LEAVES	TEA	STOMACH ACHE	-
Illicium verum	ANIL ESTRELADO	FRUIT	TEA	TOOTHACHE, FEVER	-
Licania rigida	OITICICA	LEAVES	TEA	DIABETES	-
Malva sylvestris	MALVA	LEAVES	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Matricaria recutita	CAMOMILA	BARK	TEA	INSOMNIA, EPILEPSY	-
Maytenus rigida	BONOME	BARK	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Mentha gentilis	ÁGUA-DE-ALEVANTE	LEAVES	TEA	PAIN AND FEVER	-
Mentha sp.	HORTELÃ	LEAVES	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Morinda citrifolia	NONI	FRUIT	JUICE	CANCER	-
Ocimum basilicum	ALFAVACA	LEAVES	BATH	FEVER	-
Piptadenia colubrina	ANGICO	BARK	SYRUP	RESPIRATORY SYSTEM PROBLEMS	HYPERTENSION
Pirus malus	MAÇÃ	FRUIT	MASTICATE	VOMITING	-
Plectranthus barbatus Andrews	BOLDO	LEAVES	TEA	STOMACH ACHE	-
Plectranthus ornatus Codd	BOLDO DA CHINA	LEAVES	TEA	PAIN, MALAISE	-
Pogostemon patchouly Pellet	PATCHOULI	SEED	TEA	PAIN, MALAISE, HYPERTENSION, NERVOUS SYSTEM PROBLEMS	-
Pseudobombax marginatum	IMBIRATANA	BARK	TEA	PAIN IN COLUMN	-
Punica granatum	ROMÃ	BARK	SYRUP OR TEA	RESPIRATORY SYSTEM PROBLEMS, SORE THROAT	-
Rosmarinus officinalis	ALECRIM	LEAVES	SYRUP OR TEA	RESPIRATORY SYSTEM PROBLEMS, FEVER	-
Sambucus nigra	SABUGUEIRA	FLOWER	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Schinus terebinthifolius raddi	AROEIRA	BARK	SOAK IN WATER	HEMORRHOIDS	WOMEN IN PERIOD, PREGNANT OR

					FOUR YEAR OLD OR LESS CHILDREN
Scoparia dulcis	VASSOURINHA	ROOT	TEA	ANEMIA	-
Sideroxylon obtusifolium	QUIXABA	BARK	SOAK IN WATER OR SYRUP	COLICS, RESPIRATORY SYSTEM PROBLEMS	-
Solanum melongena	BERINJELA	FRUIT	SUCO	HIGH CHOLESTEROL	-
Talisia esculenta	PITOMBA	BARK	SOAK IN WATER	PAIN IN COLUMN	-
Terminalia catappa	CASTANHOLA	LEAVES	TEA	KIDNEY PROBLEMS	-
Turnera ulmifolia	XANANA	ROOT	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-
Ximenia americana	AMEIXA	BARK	SOAK IN WATER, SYRUP OR BATH	ULCERS, RESPIRATORY SYSTEM PROBLEMS	-
-	NANUSCARDA	SEED	TEA	PAIN, MALAISE, HYPERTENSION, VOMITING	-
-	TORÉ	LEAVES	TEA	KIDNEY PROBLEMS, INFLAMMATIONS, PAIN IN COLUMN	-
Zingiber officinalis	GENGIBRE	RHIZOME OR BRANCH	SYRUP	RESPIRATORY SYSTEM PROBLEMS	-

CONCLUSIONS

It was observed that the faith healers of Colina do Horto, in Juazeiro do Norte, CE employed natural resources extensively in magical-religious healing procedures. The fact that many of the results were similar to those of other studies, including those in other Brazilian states, only reinforces the importance of ethnopharmacological study in the search for biologically active agents. Further examination of these substances habitually used by people can be useful for the more efficient discovery and development of new drugs, with lower cost and, consequently, more accessible to the public.

Also, it is important to point out the cultural importance of the study, allowing the rescue and cataloging of information on practices that have been carried out by the Horto community for generations.

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