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Ethnobotanical Study of medicinal plants used by the Santana do Campestre District Community – Minas Gerais – Brazil

Estudo etnobotânico de plantas medicinais empregadas pela comunidade do distrito de Sant'Ana do Campestre – Minas Gerais - Brasil

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Abstract: Semi-structured interviews were conducted with 68 residents in the district of Santana do Campestre - Minas Gerais. In this study we evaluated the medicinal plants and the parts that are used, the ways of obtaining and preparation and registration of its main therapeutic indications. Samples of the mentioned species were collected and identified botanically in the Herbarium of the Federal University of Viçosa. 57 plant belonging to 34 families were mentioned, especially the Asteraceae (12.20%) and Lamiaceae (12.20%). The main genus were *Plectranthus*, *Mentha* and *Gossypium*. The most commonly used plant part was the leaf (75.43%), while the decoction (80.70%) was the primary form of preparation. They are used in greater numbers for the flu, disorders in the digestive and genitourinary system. Through this essay it was possible to identify a significant number of medicinal plant species used by the community, which reveals the importance of this practice in Santana do Campestre. In this context, ethnobotany is critical to recognize and register the popular knowledge. That said, the information obtained may provide support for the spread of knowledge about medicinal plants and assist directly as a driving force in the search for new drugs.

Key words: medicinal plants, ethnobotany, popular medicine.

Resumo: Entrevistas semi-estruturadas foram realizadas com 68 pessoas residentes no distrito de Sant'Ana do Campestre – Minas Gerais. Nesta avaliou-se as plantas medicinais e suas partes utilizadas, formas de obtenção e preparo e o registro de suas principais indicações terapêuticas. Amostras das espécies citadas foram coletadas e identificadas botanicamente no Herbário da Universidade Federal de Viçosa. Foram citadas 57 plantas, pertencentes a 34 famílias, com destaque para a Asteraceae (12,20 %) e Lamiaceae (12,20 %). Os principais gêneros citados foram *Plectranthus*, *Mentha* e *Gossypium*. A parte vegetal mais usada foi a folha (75,43 %), enquanto a decocção (80,70 %) foi a principal forma de preparo. Estas são empregadas em maior número para gripe, distúrbios no aparelho digestivo e geniturinário. Por meio deste trabalho foi possível identificar um número significativo de espécies vegetais medicinais empregadas pela respectiva comunidade, o que revela a importância desta prática em Sant' Ana do Campestre. Neste âmbito, a etnobotânica é fundamental para reconhecer e registrar o conhecimento popular. Isto posto, as informações obtidas podem servir de suporte para a propagação do conhecimento sobre plantas medicinais e auxiliar diretamente como uma mola propulsora na pesquisa por novos fármacos.

Palavras-chave: Plantas medicinais, etnobotânica, medicina popular.

INTRODUCTION

Medicinal plants are any kind of plants that have in their organs or some of them, chemical compounds which can be used for therapies or which have precursor substances that are used for this purpose, being intensely used by popular medicine (ZUCHI et al., 2013).

The use of medicinal plants was first related in Egypt through the Ebers Papyrus, written approximately 1550 years before Christ and translated in 1890. In this document, several vegetable, animal and mineral drugs were described for the treatment of about 100 diseases, it was one of the first verifications on the use of natural materials for the cure of pathologies. In the Greek Civilization age, before the Christian Era, philosophers like Hipócrates and Teofrasto used natural products as medicines (ALBERTASSE et al., 2011; ALMEIDA, 2011).

The plant species considered medicinal are used therapeutically by humans since ancient times (FERREIRA et al., 2014) and the knowledge of the ancients about them was passed to subsequent generations (GUIDO et al., 2013). Nowadays the use of medicinal plants in Brazil remains widespread and it can be justified many of times for its easy access and reduced cost (FERREIRA et al., 2014). On the other hand, these plants are widely used by communities that do not have easy access to pharmacies and drugstores, either for financial reasons or transportation difficulties.

A fact that demonstrates the relevance of the use of medicinal plants, was the publication in Brazil, in 2006, of the National Policy of Integrative and Complementary Practices (*Política Nacional de Práticas Integrativas e Complementares*) in the SUS (*Sistema Único de Saúde*), which aims to expand the options for users of the system, which ensure access to plants with therapeutic, herbal and other related services, safely and effectively. In the same scope is The National Program of Medicinal and Phytotherapic plants (*Programa Nacional de Plantas Medicinais e Fitoterápicos*), in which the Government provides funding for research on medicinal plants in order to increase the number of species in Brazilian pharmacopoeia, with disclosure of their monographs (MINISTÉRIO DA SAÚDE, 2007).

Popular medicine is being published by the World Health Organization to promote health through correct, safe and rational use of plants, as well as highlight the importance of popular culture in this practice, especially for the less favored people, who mostly use medicinal plants, in some cases incorrectly (OMS, 2002).

The use of medicinal plants in the treatment of diseases is extremely important in Brazil and around the world, but this action faces toxicological issues, since incorrect use of these can cause serious damage to the patient's health (SILVEIRA et al., 2008).

In this context the ethnobotany acts as a propelling spring, since it consists of a study of societies, from their ancestors to the present, according to their cultural, symbolic, ecological and evolutionary interactions with plants. Researchers seek knowledge about how people use natural resources to treat diseases relating to local culture and, later, to pass on the acquired knowledge to the scientific world (PATZLAFF, PEIXOTO, 2009). Understanding the importance of popular knowledge and ethnobotany to contemporary population and for scientific research, the goal of the research is to systematize the popular knowledge about medicinal plants in the district of Santana do Campestre - State of Minas Gerais - Brazil.

METHODOLOGY

The survey was conducted in Sant'ana do Campestre district of Astolfo Dutra, in the region of "Zona da Mata" in Minas Gerais. With an area of 15.75 km^2,

population of approximately 1,450 inhabitants, it is located about 13 km from its municipality, 21 km from Ubá, Minas Gerais and 94 km from Juiz de Fora-MG. As Sant'Ana do Campestre is a district, its population specific data are not in the sense of the IBGE (*Instituto Brasileiro de Geografia e Estatística*), so the population was estimated according to the number of people registered in the only PSF (*Programa de Saúde da Família*) unit of the community in 2015. Their main economic activities are clothing, local trade and agriculture, the industrial sector is the population main source of income. The community has a health clinic, an ambulance and a drugstore and this district is popularly known as a place where there is a large consumption of medicinal plants.

The study consists of a cross-sectional study in which 68 people with age above 20 years old, because they are of age, have more maturity and knowledge to answer the proposed questionnaire, were interviewed in their homes. To determine the sample size, a sample calculation was used, with a 90% confidence level and a 10% sampling error. Data collection consisted of interviews with semi-structured questionnaires which consists of 13 questions, nine multiple choice questions and four open ended questions. The issues addressed the popular knowledge about the use of medicinal plants, as indications of their parts, form of collection and preparation, noting age, sex, education degree and household income.

The samples of the mentioned plants were collected at the time of the interview between those who had them at home. Among those who purchased them elsewhere, researchers went to them to collect them. The taxonomic identification of the plants was performed at the Herbarium of the Federal University of Viçosa (UFV), in order to ensure the scientific identification of the data.

The study was conducted under the approval of the ethics and Research Committee of University President Antônio Carlos (UNIPAC) of Barbacena, with protocol number: 38517714.1.0000.5156.

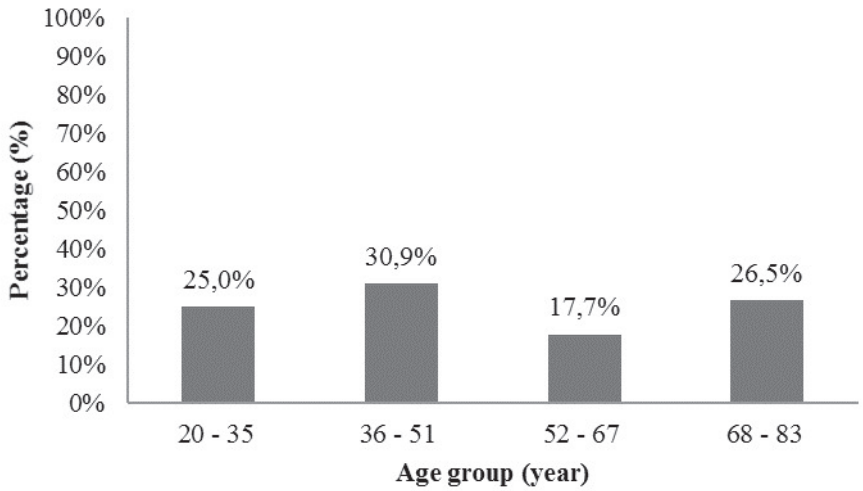

Figure 1: Variation in the age group of respondents in the community of Sant'Ana do Campestre - State of Minas Gerais.

RESULTS AND DISCUSSION

Among the 68 respondents 57.35% were female, and the age of participants ranged from 20 to 83 years old (Figure 1). Usually women are the first to resort to teas or other forms of plant preparation in the face of illness, because they stay more at home and it is in this space that everyday experiences emerge (CARVALHO, 2018). Knowledge about medicinal plants is usually exchanged orally and most of the time is in the hands of the elderly, and this information may be exhausted after their death (RAHMAN et al., 2019).

Related to socio-economic aspects, 16.20% of the interviewees are illiterates aged between 68 and 83 years; 35.30% have incomplete primary education; 17.6% have primary education; 4.40% have incomplete high school level; 16.20% have completed high school and only 10.30% have college education. As for household income, 72.00% earn up to two minimum wages; 17.60% from two to three minimum wages, 10.30% earn more than three minimum wages. The fact that the largest portion have the income of up to two minimum wages demonstrates the importance of the use of medicinal plants, since the purchase of medicines may not be affordable for the budget that has been identified.

It was found that 92.60% of the sample claimed to have knowledge about medicinal plants and considers their use important for the treatment of diseases and just 7.35% said they didn't have any knowledge. In the study of Giraldi and Hanazaki (2010), all respondents consider the use of medicinal plants important, and in Oliveira et al. (2010) research all participants claimed to have knowledge about these. When asked if they think medicinal plants can somehow harm, 27.90% stated to think that excessive use may cause harm and 72.00% believe that natural does not hurt. In a study by Silva et al. (2008) in Bahia, the idea that "natural wouldn't hurt" also prevailed, being a negative factor, because many people do not know the limits of toxicity of excessive use of plants.

Free listing of medicinal plants allowed the systematization of the use of 57 plants (Table I), and many of them were mentioned more than once and with indications, used parts different preparation methods. Oliveira et al. (2010) also highlighted the variety of uses of a same plant for several pathologies. The most quoted medicinal plant was Boldo (*Plectranthus* sp.) (57 quotes), followed by Hortelã (*Mentha* sp.) (25 quotes), Algodão (*Gossypium* sp.) (22 quotes), Transagem (*Plantago* sp.) (18 quotes), Erva cidreira (*Cymbopagon* sp.) (15 quotes) and Camomila (*Matricaria* sp.) (14 quotes). Other studies also highlighted the use of species of this kind, except *Gossypium* sp.; *Cymbopagon* sp. and *Matricaria* sp. (ALBERTASSE et al., 2010; COSTA, MAYWORM, 2011; HOEFFEL et al., 2011; LIPORACCI, SIMÃO, 2013). The plant that had a wider range of therapeutic effects highlighted was the Hortelã (*Mentha* sp.) (10 effects), including headache, treatment of infections, the flu, menstrual cramps, indigestion, worms, liver disorders and bark, kidney and throat infections, which demonstrates its importance for the treatment of diseases. In a survey conducted in the state of Minas Gerais this same vegetable species had the largest number of uses mentioned (OLIVEIRA, MENINI NETO, 2012).

The *Primeiro Suplemento do Formulário de Fitoterápicos da Farmacopeia Brasileira* (ANVISA, 2018) includes some medicinal plants and their respective parts that can be used for the preparation of herbal medicines. Some popular names, plant species and their indications corroborated the popular names and genera of medicinal plants found in this study. According to this document, *Allium sativum* (Alho) pulverized bulb is indicated to assist in the symptoms associated with upper airway infections with the presence of secretion. People may relate these symptoms of upper airway infections to flu and cough, as popularly described. This document also shows that the aerial part of *Phyllanthus niruri*

L. (Quebra-pedra/Arrebenta-pedra) may assist in the treatment of water retention. Participants indicated the use of this plant for kidney stone treatment and kidney infection, which is related to the urinary tract.

The *Primeiro Suplemento do Formulário de Fitoterápicos da Farmacopeia Brasileira* (ANVISA, 2018) also reports that leaves of *Plectranthus barbatus* (Boldo-africano/ Boldo-brasileiro/Boldo-nacional) help relieve dyspeptic symptoms. It also reports that the stigma, which is the receptive area of the flower pistil, of *Zea mays* L. (Milho), assists in the treatment of mild water retention, which is also related to the urinary tract, and participants reported using this plant for treatment of kidney/urinary tract infection. The document also indicates that the powdered leaf of *Eucalyptus globulus* Labill. (Eucalipto) assists in symptomatic treatment of productive cough associated with the common cold and participants reported the use of this plant to treat nasal congestion, which is also related to colds. It also brings leaves of *Mentha x piperita* L. (Hortelã-pimenta) help in the relief of dyspeptic symptoms and as antiflatulent. It also reports that the pericarp (outer layer of the angiosperm fruit that surrounds the seeds) of *Punica granatum* L. (Romã) assists in the symptomatic treatment of inflammatory conditions and as an antiseptic of the oral cavity. Finally, the aerial part of *Plantago major* L. (Tanchagem/Tansagem/ Tranchagem) helps in the treatment of inflammatory and antiseptic disorders of the oral cavity.

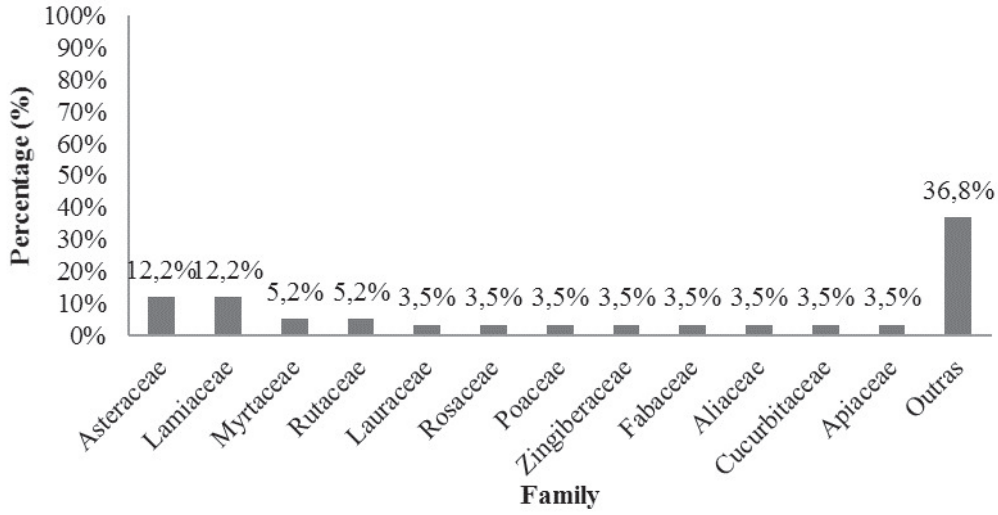

Figure 2: Main plant families listed.

Grandi (2014) reports that Abacaxi (*Ananas cosomus* (L.) Merril) prepared by decoction can be used as an expectorant, corroborating this study, but the part used by this author was the fruit, and in this research the bark, demonstrating that the expectorant action of another part of this plant can be studied. This same author reports that the fruits of Acerola (*Malpighia emarginata* DC), prepared as juice, are a source of vitamin C, helping to combat colds, as found in this research, but the part used by respondents was the leaf and the form of preparation was the decoction, differing from this research, indicating that one can study new ways of preparation and effects of other parts of this plant.

According to the aforementioned author, Arruda (*Ruta graveolens* L.) prepared by infusion/decoction/tincture/ eye drops may be used for eye infections and this research found its use for eye irritation, which may be

confused by the participants, or also a new one indication that can be studied, besides the indicated preparation form was as an emulsion, differing from that recommended by this author. Grandi (2014) also indicates the use of Assa-peixe leaves (*Vernonia polyanthes* Less), prepared by decoction or juice, for the treatment of flu and also the use of Camomila flowers (*Matricaria recutita* L.), prepared by decoction, as a stomach and soothing agent, corroborating this study.

Also, according to Grandi (2014), Chapéu-de-couro leaves (*Echinodorus macrophyllus* (Kunth) Micheli) prepared by infusion/decoction can be used to treat skin infections, which was also found in this research. This author also reports the use of Gengibre roots (*Zingiber officinale* Rosce), prepared by decoction, for the treatment of flu, also reported by the participants of this study. It also indicates the use of Graviola leaves (*Annona muricata* L.) prepared by decoction, as antidiabetic, corroborating what was found in the present study. According to this author, as found in this study, Goiaba (*Psidium guayava* L.) can be used as an antidiarrhea, but the respondents of this study reported the fruit as an employed part (directly consumed), while this author indicates the use of stem peel or leaves prepared by infusion/decoction. It also indicates that Laranjeira (*Citrus aurantium* L.) and Limoeiro (*C. limon* (L.) Burman F.) leaves, prepared by decoction, combat flu, as in this research, in addition to the calming effect of the Laranjeira. According to him, Mané-magro leaves (*Leonurus sibiricus* L.) prepared by infusion/decoction/maceration and Losna leaves (*Artemisia absinthium* L.) prepared by infusion are indicated for indigestion, and this effect is reported by respondents, but they prepare thin mane as juice.

This author also corroborates the study by reporting the use of Mangueira leaves (*Manguifera indica* L.) prepared by decoction for the treatment of flu, Marmelinho leaves (*Tournefortia paniculata* Cham) prepared by infusion/decoction against renal infections, and Melão-de-São-Caetano leaves (*Mamordica charantia* L.), prepared by decoction, as anti-fever. In addition, it highlights the effect of Pata-de-vaca leaves (*Bauhinia forficata* Link), prepared by infusion/decoction in the treatment of diabetes and Picão (*Bidens pilosa* L.), on liver malfunction, as well as that found in this study.

This shows that many effects of popularly known medicinal plants are also already recognized in the literature, but many can still be studied, as well as the effects of different parts of plants and forms of preparation, so this type of study can assist in starting new research.

The families with the largest number of plants mentioned were: Asteraceae (12.20%) and Lamiaceae (12.20%) (Figure 2). The study by Neto et al. (2014) on Sisal community, municipality of Catu in Bahia (Brazil) also pointed out these two families as the most representative.

Table I: Identification of plant species cited, number of citations, parts used, forms of preparation and therapeutic uses.

Popular and Scientific Names	Number of citations	Family	Parts used	Preparation Method	Therapeutic Use
Abacateiro – *Persea* sp.	1	Lauraceae	Leaf	Decoction	Kidney infection
Abacaxi - *Ananas* sp.	1	Bromeliaceae	Bark	Decoction	Expectorant
Acerola – *Malpighia* sp.	1	Malpighiaceae	Leaf	Decoction	Flu
Agrião – *Narturtium* sp.	3	Brassicaceae	Leaf	Decoction	Vitamin, the flu

Popular and Scientific Names	Number of citations	Family	Parts used	Preparation Method	Therapeutic Use
Alecrim - *Rosmarinus* sp.	2	Lamiaceae	Leaf	Decoction, juice	Soothing
Algodão – *Gossypium* sp.	22	Malvaceae	Leaf, flower	Decoction, infusion	Uterine/urinary infection
Alho – *Allium* sp.	2	Aliaceae	Fruit	Maceration	Flu/cough
Amora – *Rubus* sp.	1	Rosaceae	Leaf	Decoction	Urinary/Kidney Infection
Arrebenta-pedra – *Phyllanthus* sp.	5	Euphorbiaceae	Root/Leaf	Decoction, infusion	Infection/kidney stone
Arnica- *Arnica* sp.	1	Asteraceae	Leaf	Poultice	Muscle Pain
Arruda – *Ruta* sp.	3	Rutaceae	Leaf	Poultice /bath	Bark allergies/eye irritation
Assa-peixe – *Vernonia* sp.	7	Asteraceae	Leaf	Poultice, Decoction, juice	Healing, bark inflamation/ infection, flu
Berinjela – *Solanum* sp.	1	Solanaceae	Fruit	Maceration	Diabetes
Boldo – *Plectranthus* sp.	29	Lamiaceae	Leaf	juice, infusion, Decoction	Indigestion, liver malfunction, diarrhea
Cabelo-de-milho – *Zea* sp.	2	Poaceae	Flower	Decoction	Renal/Urinary Infection
Cambará – *Lantana* sp.	7	Verbenaceae	Leaf	Decoction, infusion	Flu/cough
Camomila – *Matricaria* sp.	14	Asteraceae	Flower	Maceration, Decoction	Soothing, indigestion, fever
Caninha-do-brejo – *Costus* sp.	2	Zingiberaceae	Stem, Leaf	Decoction	Renal/Urinary Infection
Carrapichinho – *Desmodium* sp.	4	Fabaceae	Root, Leaf	Decoction, infusion	Kidney Infection
Carqueja –*Bacharis* sp.	1	Asteraceae	Leaf	Infusion	Uric Acid
Cebola – *Allium* sp.	2	Aliaceae	Bark	Decoction	Cough, gas elimination
Chapéu-de-couro – *Echinadorus* sp.	3	Abstamataceae	Leaf	Decoction, infusion	Kidney Stone, bark infection, blood cleanser
Chuchu – *Sechium* sp.	1	Cucurbitaceae	Leaf	Decoction	Hypertension
Cinco folhas – *Tabebuia* sp.	1	Bignoniaceae	Leaf	Decoction	High Cholesterol
Elevante – *Mentha* sp.	9	Lamiaceae	Leaf	Infusion, Decoction	flu, diarrhea, indigestion
Embaúba – *Cecropia* sp.	1	Cecropiaceae	Leaf	Decoction	Kidney infection
Erva cidreira – *Cymbopagon* sp.	15	Poaceae	Root, Leaf	Decoction, infusion	Soothing, flu/cough, hypertension, throat infection
Erva doce – *Pimpinella* sp.	8	Apiaceae	Seed, Leaf	Decoction	Soothing, gas elimination
Eucalipto – *Eucalyptus* sp.	2	Myrtaceae	Bark, Leaf	Inhalation	Nasal congestion

Popular and Scientific Names	Number of citations	Family	Parts used	Preparation Method	Therapeutic Use
Fruta pão – *Artacarpus* sp.	1	Moraceae	Leaf	Decoction	Diabetes
Funcho – *Foeniculum* sp.	3	Apiaceae	Leaf	Decoction	Soothing
Gengibre – *Zingiber* sp.	1	Zingiberiaceae	Root	Decoction	Cough
Graviola – *Annona* sp.	1	Annonaceae	Leaf	Decoction	Diabetes, infection
Goiabeira – *Pisidium* sp.	1	Myrtaceae	Fruit	Chewing	Diarrhea
Hortelã – *Mentha* sp.	25	Lamiaceae	Leaf	Poultice, Decoction, infusion, Maceration	Headache, flu, cramps, indigestion, worm, liver malfunction, bark/kidneys/ throat infection
Insulina – *Cissus* sp.	1	Vitaceae	Leaf	Decoction	Diabetes
Jalão – *Syzygium* sp.	1	Myrtaceae	Leaf	infusion	Triglycerides and cholesterol
Laranjeira – *Citrus* sp.	12	Rutaceae	Leaf	Decoction	Flu, soothing, cough, toothache
Limoeiro – *Citrus* sp.	1	Rutaceae	Leaf	Decoction	Flu
Losna – *Artemísia* sp.	11	Asteraceae	Leaf, stem	Juice, infusion	Indigesion, liver malfunction
Louro – *Laurus* sp.	1	Lauraceae	Leaf	Decoction	Gas Elimination
Macela – *Matricaria* sp.	3	Asteraceae	Leaf	Juice	Indigestion,fever
Mamoeiro – *Carica* sp.	1	Caricaceae	Flower	Decoction	Flu
Mané-magro – *Leonurus* sp.	7	Lamiaceae	Leaf	Poultice, juice	Healing, indigestion
Mangueira – *Mangifera* sp.	1	Anacardiaceae	Leaf	Decoction	Flu
Manjericão – *Ocinum* sp.	1	Lamiaceae	Leaf	Juice	Earache
Maracujá – *Passiflora* sp.	1	Passifloraceae	Bark	Decoction	Diabetes
Marmelinho – *Tournefortia* sp.	5	Boraginaceae	Leaf	Infusion, decoction	Kidney infection, cystitis
Melão de São Caetano – *Mamordica* sp.	1	Cucurbitaceae	Leaf	Decoction	Fever
Pata de vaca – *Bauhinia* sp.	5	Fabaceae	Leaf	Decoction, infusion	Diabetes
Picão – *Bidens* sp.	2	Asteraceae	Root	Decoction, infusion	Kidney infection, liver malfunction
Piteira - *Agave* sp.	1	Agavaceae	Root	Decoction	Kidney Infection
Poejo – *Mentha* sp.	8	Lamiaceae	Leaf	Infusion, Decoction	Flu
Romã – *Punica* sp.	2	Punicaceae	Seed	Decoction	Throat Infection
Rosa branca – *Rosa* sp.	3	Rosaceae	Flower	Decoction	Infection
Saião – *Kalanchoe* sp.	5	Crassulaceae	Leaf	Decoction	Flu/ cough
Transagem – *Plantago* sp.	18	Plantaginaceae	Leaf, root	Decoction, infusion, juice	Cramp, kidney, throat and uterine infections, flu

Regarding the types of disorders for which the respondents mostly seek the use of medicinal plants, it was found that symptoms related to colds and flu (45.10% of plants), such as cough; disorders in the digestive tract (35.40% of plants), mostly indigestion and liver malfunction and genitourinary tract disorders (32.20% of plants), especially kidney and uterus infection were the most important (Table II). The use of medicinal plants in the treatment of the mentioned disorders have great relevance, as they were described in numerous ethnobotanicals and ethnopharmacological studies (ALBERTASSE et al., 2010; OLIVEIRA et al., 2010; ALBUQUERQUE, HANAZAKI, 2011; PEREIRA et al., 2012).

Table II: Percentage of the main purposes of the use of the mentioned medicinal plants

Action Part or disorder	Percentage (%)
Respiratory (flu/colds)	45,1
Digestive system	35,4
Genitourinary Tract	32,2
Diabetes, hypercholesterolemia, hypertriglyceridemia and uric acid	17,7
Dermatological	12,2
Sore muscles/backache/headache/ earache	8,7
Nervous System	9,6
Fever	4,8
Parasitological	1,6
Visual	1,6

The plant part mostly mentioned and used was the leaf (75.40%) (Figure 3), as in other studies (COSTA, MAYWORM, 2011; OLIVEIRA et al., 2011; PASA, 2011). This result can be justified by the fact that it's easier to collect them (OLIVEIRA, MENINI NETO, 2012).

About the preparation methods that can be used for the medicinal plants mentioned above, it was found that the most used is the decoction (80.70%), followed by infusion (31.50%) (Figure 4). In a study by Oliveira et al. (2010) the decoction was also the most used preparation method. Something that should be highlighted is that at the time of the interview, many people said they prefer using the infusion in the preparation of teas because they believe that at the time of decoction some therapeutic compounds "evaporate". Albertasse et al. (2010) highlight that the decoction may not be used in the preparation of all plants because some active ingredients can be eliminated or have their effects reduced.

It was noticed that the knowledge of medicinal plants by interviewees was acquired primarily from parents and grandfathers (76.50%) (Figure 5). Other ethnobotanical studies also point these groups as the main propagators of knowledge about medicinal plants (ALBERTASSE et al., 2010; BADKE et al., 2012; CEOLIN et al., 2010), emphasizing the relevance of deans of every family in this practice.

When asked about the places where the interviewees obtained the medicinal plants they use, most answered at their own home (42,60%) and from neighbors (33,80%) (Figure 6), just like the results of a previous study made in Minas Gerais (HOEFFEL et

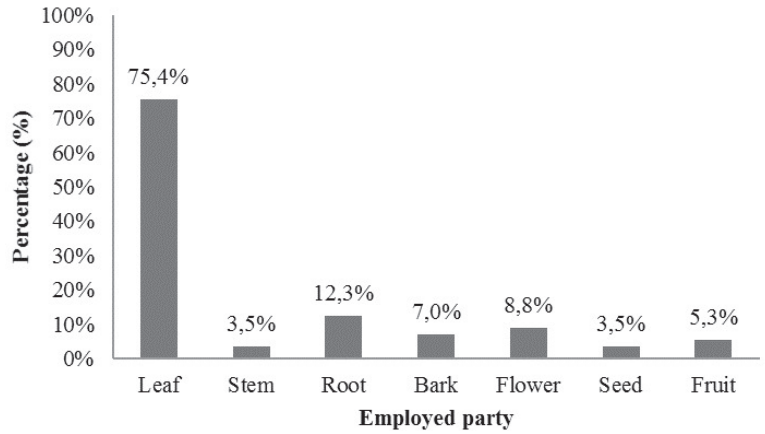

Figure 3: Parts of the plants that are mostly used by the interviewees from Sant'Ana do Campestre.

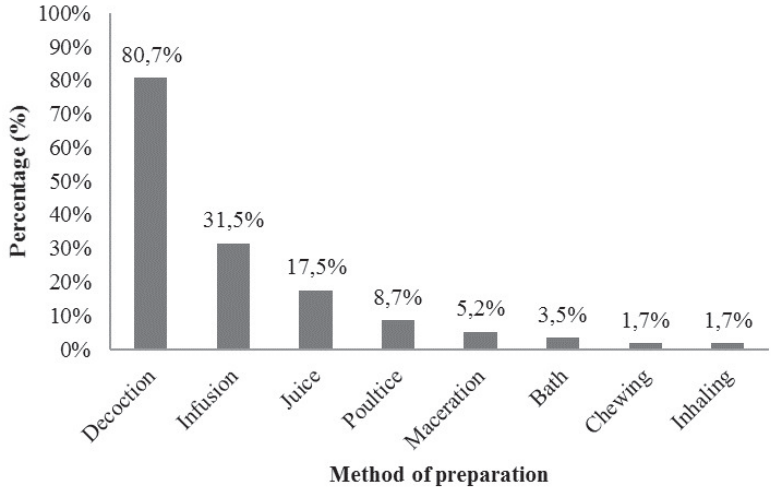

Figure 4: Main preparation methods for the medicinal plants mentioned by the interviewees in de Sant'Ana do Campestre- Minas Gerais.

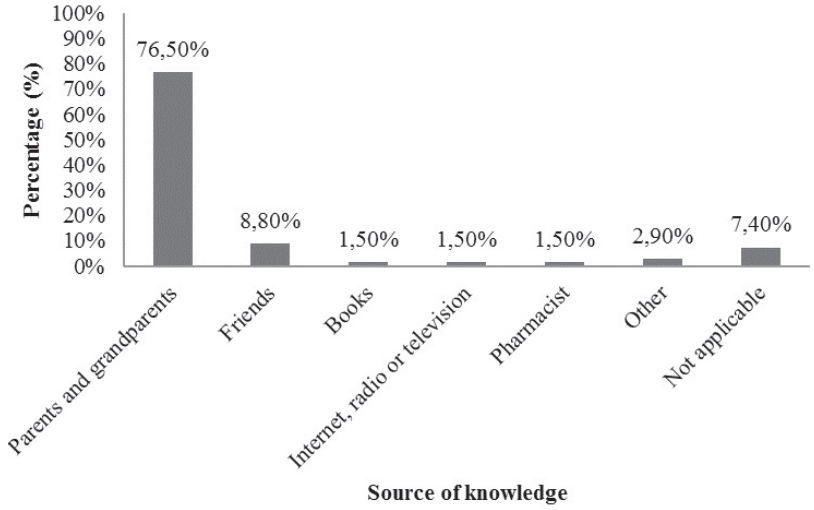

Figure 5: Main ways interviewees from Sant'Ana do Campestre – Minas Gerais obtained knowledge about the medicinal plants.

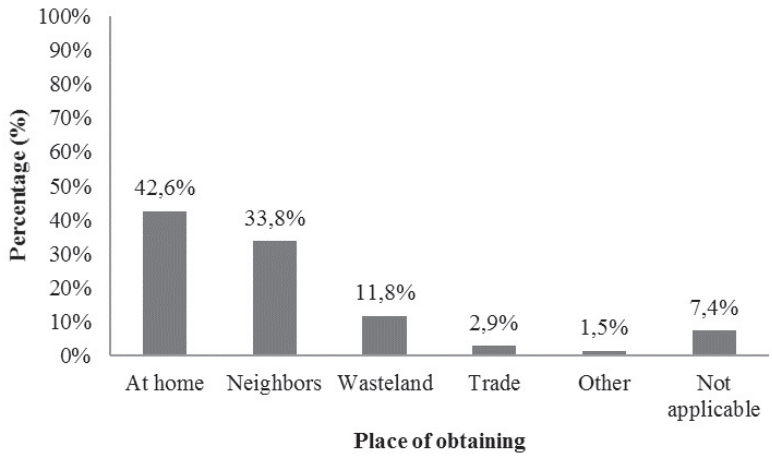

Figure 6: Places where the medicinal plants used by the interviewees in Sant'Ana do Campestre – Minas Gerais were found.

al., 2012).

Regarding the preference in the use of medicinal plants, synthetic drugs or herbal medicines for the treatment of diseases, 52.80% prefer the use of medicinal plants and 41.20% synthetic drugs. Most respondents who prefer the use of synthetic drugs are young. In a study conducted by Albertasse et al. (2010) most respondents also preferred the use of medicinal plants, as well as in Giraldi and Hanazaki (2010) and Liporacci and Simão (2013).

Among the group that acquires the medicinal plants they use at home, we asked if there is any concern on keeping plants away from sewage and toxic chemicals, observing a positive result, with 93.1% of respondents answering they are careful.

Regarding the characterization of medicinal plants at the time of preparation, we asked people if they use dried or fresh plants and, if there is concern about the correct storage. Most people use fresh plants (85.30%) and among those who use dry, all of them keep the plants protected from light and humidity, this action is important for the proper conservation of the active ingredients present in plants.

CONCLUSION

As we completed this study it was possible to register a significant number of medicinal plants used in the community of Sant'Ana do Campestre, revealing that despite the large number of drugs available in the market and people's bigger access to synthetic drugs, there's still the therapeutic use of plants.

The information obtained through this research can be a support for the spread of knowledge about medicinal plants and for further ethnopharmacological and ethnobotanical studies, since the empirical use of plants often originates scientific research and consequent development of new medicines.

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CONFLICT OF INTEREST STATEMENT:

Nothing to declare.