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RESEARCH

Plantas medicinais utilizadas para analgesia em famílias descendentes de pomeranos no Sul do Brasil

Medicinal plants used for analgesia in families descendants of pomeranians in Southern Brazil

Plantas medicinales utilizadas para la analgesia en familias descendientes de pomeranias en el Sur de Brasil

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ABSTRACT

Objective: the aim of this study was to identify the medicinal plants used as analgesic by families descendant from Pomeranians in Southern Brazil. **Method:** this was a qualitative study with five families of farmers. The place of the study was the home of families, located in the countryside, with data collected between January and May 2011. The instruments used were the imposition of a semi-structured interview and ethno-botany of medicinal plants used as analgesic, which were later identified taxonomically. **Results:** there were mentioned 105 medicinal plants, from which 20 are used as analgesic. **Conclusion:** it is observed that most of the analgesic medicinal plants such as the families mentioned have not proven this effect; on the other hand, such plants have other therapeutic effects capable of causing changes in the body. Thus, it is for health professionals to be aware about the measures of care adopted by the people. **Descriptors:** medicinal plants, analgesics, ethno-botany.

RESUMO

Objetivo: o objetivo deste estudo foi identificar as plantas medicinais utilizadas como analgésicas por famílias descendentes de pomeranos no Sul do Brasil. **Método:** Trata-se de um estudo qualitativo, realizado com cinco famílias de agricultores. O local do estudo foi o domicílio das famílias, localizadas na zona rural, sendo os dados coletados entre janeiro e maio de 2011. Os instrumentos utilizados foram a aplicação de uma entrevista semi-estruturada e levantamento etnobotânico das plantas medicinais utilizadas como analgésicas, que posteriormente foram identificadas taxonomicamente. **Resultados:** foram citadas 105 plantas medicinais, das quais 20 são utilizadas como analgésicas. **Conclusão:** observa-se que grande parte das plantas medicinais citadas como analgésicas pelas famílias não possuem este efeito comprovado, por outro lado, estas mesmas plantas possuem outros efeitos terapêuticos capazes de provocar alterações no organismo. Com isso, cabe aos profissionais de saúde estar atentos sobre as medidas de cuidado adotadas pelas pessoas. **Descritores:** plantas medicinais, analgésicos, etnobotânica.

RESUMEN

Objetivo: el objetivo de este estudio fue identificar las plantas medicinales utilizadas como analgésico por las familias descendientes de Pomeranians en el sur de Brasil. **Método:** se realizó un estudio cualitativo con cinco familias de agricultores. El sitio de estudio fue el hogar de las familias, que se encuentra en el campo, con los datos recogidos entre enero y mayo de 2011. Los instrumentos utilizados fueron la imposición de una entrevista semi-estructurada y la encuesta etnobotánica de plantas medicinales utilizadas como analgésico, que más tarde fueron identificadas taxonomicamente. **Resultados:** fueron citadas 105 plantas medicinales, de las cuales 20 se utilizaba como analgésicos. **Conclusión:** se observó que la mayoría de las plantas medicinales mencionadas como analgésicas por las familias no han probado este efecto, por otro lado, estas dichas plantas tienen otros efectos terapéuticos capaces de causar cambios en el cuerpo. Por lo tanto, es para los profesionales de la salud estar conscientes sobre las medidas de cuidado adoptadas por las personas. **Descriptor:** plantas medicinales, analgésicos, etnobotánica.

Study extracted from the Master's Thesis titled: "Medicinal plants and health care in families descendant of Pomeranians in southern Brazil" presented at Program of Post graduate in nursing at the Federal University of Pelotas, Brazil, 2011.

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INTRODUCTION

The pain may be perceived as an unpleasant sensory and emotional experience associated with actual or potential damage of the tissues of the organism.¹ This concept stresses the understanding of this painful sensation as multidimensional and subjective, involving physical, emotional, cultural, social, and personal², i.e. every human being learns its meaning through experiences experienced throughout life.

The different ways with which individuals experience pain can also be perceived in the way of dealing. Most people develop different strategies and actions which are reflections of their culture and of their conception of care.

Currently, for the treatment of pain, there are pharmacological and non-pharmacological approaches.³ Among those non-pharmacological, stands out the use of medicinal plants, which are defined by the World Health Organization (WHO) as species from which products of therapeutic interest can be obtained and used in the human species.⁴

In recent years, it has been noted that this therapeutic resource became more used by a growing number of people as many of the treatments indicated for the treatment of pain are of high cost and are not always within reach of the economic population. Another important factor to be highlighted is the fact that many people prefer less aggressive treatments, body care practices for choosing which they consider effective and less harmful to health.

The history of the use of medicinal plants has shown that they were the first therapeutic resources used by the people.⁵ Often, these medicinal species are grown in their own backyard, a secular practice based on popular knowledge and passed through the generations of families.⁶

This popular knowledge about medicinal plants depends on the cultural repertoire of each individual, group and society, since each population develops, in their own way, ways to explore the diversity of environments for their survival.⁷ Medicinal plants are used depending on the cultural context of who uses them, i.e., its planting, preparation and dosage may vary from one community to another.⁸

It is in this sense that the families descendant of Pomeranians have peculiarities regarding the handling and consumption of medicinal plants. These families came from the former Pomerania to Rio Grande do Sul around 1856, where they settled in order to colonize the lands that had not yet been taken. Always had great proximity to the Earth, seeing in it a source of natural resources to meet their core needs.⁹

Currently, these families cultivate a large number of products used for consumption and also for commercialization, including the planting of medicinal plants. These have the most varied therapeutic indications and evidence that a significant amount of species was referred to as effective for pain control and management.

Although a large part of the population believe that the use of medicinal plants does not harm the body, many species can cause serious and unwanted side effects, and increase or decrease the action of many drugs when used concurrently. On certain occasions, some plants of different kinds, with different active ingredients, are known by the same name, which ends up generating the inappropriate consumption of these species.¹⁰

To reduce the problems related to improper use of medicinal plants, the Ministry of Health has drafted the National Relation of Medicinal Plants of interest to SUS (National Health System) (RENISUS), with 71 medicinal plants, aiming to guide studies that can subsidize the preparation of herbal medicines available for the use of the population, with safety and efficacy for the treatment of certain symptoms and disease.¹¹ This scenario requires attention of health care professionals as it is increasing the number of people seeking other types of non-pharmacological therapies capable of producing the effect of analgesia. The knowledge of professionals about the use of medicinal plants will help in the search and in the expansion of new knowledge and practices related to health care.

This work aims to identify medicinal plants used as analgesic for families descendant from Pomeranians in southern Brazil.

METHOD

This is a qualitative study¹² linked to the Project *Bioactive Plants of human use by families of basic ecological farmers in southern of Rio Grande do Sul*, developed by the College of Nursing from UFPel (Federal University of Pelotas) and Embrapa (Brazilian Company of Farming and Cattle-Raising) Temperate Climate, approved by the Ethics and Research Committee of the medical school of the UFPel under the number 072/07.

There were interviewed five families descendants of Pomeranian colonization. As selection criterion has been interviewing people over 18 years old, people with knowledge of medicinal plants, who were able to communicate orally in Portuguese and who accepted the publication of relevant research data.

To begin the identification of the subject, was approached the President of the Association of Pomeranian Path, an organization of families of the municipality of São Lourenço do Sul (RS) which aims to enhance and maintain local culture through cultural events and farm tourism. When approached, the President of this Association indicated a family that framed the selection criteria, setting off the chain of informants as the methodology "Snowball".¹³

The visits were previously scheduled as the availability of each family, so aiming not interfering in their daily chores. The location of the study was the domicile of those households, in rural municipality of São Lourenço do Sul/RS. The collection of data concerning knowledge about medicinal plants occurred between January and May 2011. The instruments used were the implementation of a semi-structured interview, followed by the construction of a worksheet to the Ethnobotanical survey of medicinal plants used as

analgesic, containing the following items: popular name of the plant, scientific name and family, popular indication, part of plant used, preparation and dosage. The interviews were recorded with the purpose of loss does not occur on the information collected, always with the consent of the informants. The interviews were transcribed and organized into thematic groups.¹⁴

All medicinal plants were photographed and geo-referenced by means of the Global Positioning System (GPS). The plants listed have been identified taxonomically with the aid of botanical identification keys.

RESULTS AND DISCUSSION

The families descendants from Pomeranians participants of this survey reside within the municipality of São Lourenço do Sul, in small rural properties. Part of the daily life of these families the planting of several horticultural products, some plant and resell their products in ecological fairs located in the city center while others cultivate these products only for personal consumption. The majority of plant species are planted in the yard, near residences, making easier the access when a family member needs.

Through the interview and the construction of the worksheet to the Ethnobotanical survey were cited by popular name 105 medicinal plants. Of these, 20 are used as analgesic (Pennyroyal, Rosemary, Capuchin, lemon grass, Marcela, guava, mint, lemon balm herb, Plantago major, violet, melhoral, fennel, Mugwort, gorse, Thorn Tree-Santa, lime, avocado, mil-in-branches, penicillin, saffron, garlic, Surinam cherry, anise,).

In addition to being used against pain, there were assigned other therapeutic indications for these 26 species, which are presented in the table below.

Table 1: Medicinal plants used for the management of pain, by families descendant of Pomeranians in southern Brazil: Rio Grande do Sul, Brazil, 2013.

Scientific name	Popular Name	Referred indications by the families
<i>Menthapulegium</i>	Pennyroyal	Pain type cramping, insomnia, flu, malaise, and tranquilizer.
<i>Rosmarinusofficinalis</i>	Rosemary	Headache, flu, diuretic, eliminates toxins.
<i>Tropaeolummajus</i>	Capuchin	Sore throat, bactericide, General infections.
<i>Cymbopogoncitratus</i>	Lemon grass	Headache, stomach cramps, fever, cough, pain in General.
<i>Achyroclinesatureioides</i>	Marcela	Stomach cramps, calming, and malaise.
<i>Psidiumguajava</i>	Guava	Stomachache, diarrhea,

<i>Mentha sp.</i>	Mint	soothing. Headache, flu, against worms.
<i>Aloysiacitriodora</i>	Lemon balm herb	Relieves cramping and intestinal pains, anti-depressant. Cramping and intestinal pains, anti-depressant.
<i>Plantago sp.</i>	Plantago major	Headache, influenza, antibiotic, antiviral.
<i>Viola odorata</i>	Garden violet	Pain and inflammation of the throat, inflammations in General.
<i>Foeniculumvulgare</i>	Fennel	Pain type cramping, gastrointestinal problems.
<i>Bacharis sp.</i>	Gorse	Stomachaches, digestion.
<i>Maytenusilicifolia</i>	Thorn Tree-santa	Stomachaches, gastritis, intestinal gas.
<i>Perseaamericana</i>	Avocado	Stomach pain.
<i>Achilleamillefolium</i>	Yarrow	Analgesics, antihypertensive.
<i>Alternantheradentata</i>	Penicillin	Pain and inflammation of the throat.
<i>Allium sativum</i>	Garlic	Headache, flu, diuretic.
<i>Eugenia uniflora</i>	Brazil Cherry	Toothache.
<i>Ocimumselloi</i>	Anise	Headache, flu, digestive.

Most of the medicinal plants mentioned, the part used are leaves, except the *Plantago major*, where the seeds are exploited and the garden violet, melhoral, *Artemisia* and *Marcela*, in which the flowers are also used.

As for preparation, infusion stands out as the primary mode of preparation, which consists of the immersion of an aromatic substance in hot water. Cooking also represents a way of preparing the plants for consumption, in which the plant is placed in cold water and brought to a boil between 10 to 20 minutes, depending on the consistency of each plant. This method has applicability when using hard parts of the plant, such as seeds and roots. According to the families, regarding dosage, this undergoes variations according to the type of pain. The Pennyroyal, Rosemary, guava, mint, Lemongrass, *Plantago major*, garden violet, melhoral, the fennel, the Mugwort, gorse, the avocado, mil-in-branches and the anise can be used from 8 to 7 days with a variation of 2 to 5 cups per day. Species such as garlic, the Thorn Tree-Santa, the Capuchin and grass lemon balm should be used between 2 to 3 days too with variations of 2 to 3 cups a day. The file, penicillin and Saffron can be used "as water", an expression referred to by some families and that means that the plant has no side effect and may be compared with the water consumed on a daily basis.

In relation to side effects or contraindications, only the melhoral and Brazil cherry were cited by households. Hypotension was the first species to aggregate contraindication, whereas constipation was listed as side effect of the second species.

It is worth mentioning the production of a composite of medicinal herbs, called Maishnaps, produced by a family interviewed, which is used for mild stomach pains. The name originates from the ancient Maishnaps Pomerania, where this compound was

produced. Families descendant of Pomeranians produce this compound in the month of May, with 32 of medicinal herbs mixed with 1 liter of sugar cane brandy.

In view of the foregoing, it is observed that there is a great knowledge on the part of families descendant of Pomeranians about plants that can be used as a therapeutic resource, and, especially, as analgesic.

The strong connection of the families interviewed with nature has historical origins. When they arrived in the region, the first Pomeranians found numerous difficulties, since the lack of food to the lack of resources to health, for both conditioned, saw nature as a source of solution to their problems. For health, the Pomeranian families used infusions of medicinal herbs and some homeopathic.¹⁵

The cited 20 plants have different effects and characteristics between each other. However, it is important to highlight the problem of popular name, since it can be assigned different names for the same species and the same popular name also can be assigned to several different species. With respect to the analgesic effects of the plants mentioned, when you perform a comparison with scientific studies and literary works on the subject noted that species like *Rosmarinus officinalis*, *Mentha* sp, *Achillea millefolium*, *Aloysia citriodora* and *Cymbopogon citratus*. The first species and the fifth species are used as analgesic, in general, the second and the third species have effects able to reduce cramping and the fourth kind relieves spasms.¹⁶

Unlike the 5 species mentioned above, which have effects able to reduce painful sensations in the body, 15 species have therapeutic effects different from those cited by the families of this study, i.e. do not have analgesic effects proven in literature. Among these species, *Menthapulegium*, as the literature is employed in the treatment of digestive disorders, amenorrhea, cold and as diuretic; *Tropaeolummajus* has respiratory and pulmonary diseases instructions and as expectorant; *Ocimumselloi* is indicated for stomach problems and of airways, being also considered diuretic.¹⁶

In accordance with resolution RDC n.10¹⁷ published in March 9th, 2010, *Achyroclinesatureoides* has indications for lack of appetite, dyspepsia (digestive disorders), fever, inflammation and cramps; *Psidiumguajava* is indicated for non-infectious diarrhea and as antiseptic; *Plantago* sp. has a lawsuit against inflammations of the mouth and pharynx; *Maytenusilicifolia* has an effect against digestive disorders, considered an important coadjuvant in the treatment of ulcers arising from the use of anti-inflammatory drugs; *Baccharis* sp. is indicated for cases of dyspepsia; *Citrus* sp. Lightweight frames have indication of anxiety and insomnia, as soothing soft *Eugenia uniflora* is indicated for non-infectious diarrhea.

Viola odorata is anticancer, also acts as expectorant and antiseptic; *Foeniculumvulgare* is digestive stimulant, acts so important in secondary reactions to chemotherapy¹⁶; *Perseaamericana* is considered adjuvant treatment of rheumatoid arthritis and osteoarthritis; *Alternantheradentata* is anti-tumor; *Allium sativum* is considered coadjuvant in the treatment of Hyperlipidemia and hypertension, in addition to assist in the prevention of atherosclerosis.¹⁸

It is observed that a large number of medicinal plants cited as analgesic for the families descendant of Pomeranians don't have this proven effect; on the other hand, these same plants have other therapeutic effects able to cause changes in the body.

The ignorance about a widespread consumer product can, for overuse or mistaken, generate serious health problems. These problems arise both from the lack of knowledge on the part of the user, which generally prescribes his own pills without due knowledge, as on the part of health professionals who, without having sufficient clarity about the correct concepts of use of medicinal plants as medicine, can make use of the same misleading.⁸

For a proper use of the active principles of a plant requires the correct preparation. In the process of using medicinal plants, adverse effects may occur, as well as in the use of allopathic. Several problems, such as incorrect identification of plants, need for standardization, deficient practice of processing, contamination and indiscriminate dosage may represent a threat to the health of people who make use of these.⁸In addition, it is important to stress that medicinal plants can also generate possible interactions, i.e. a tea or a phytotherapeutic may cause changes in the effect of some drugs when used concurrently.¹⁸

A study with 48 species of medicinal plants showed the problems arising from the concomitant use of medicinal plants with the allopathic. Among the problems are reported blood coagulation disorders, bleeding may occur, falling blood pressure, hypoglycemia, intensification of effects of drugs such as benzodiazepines (lorazepam or diazepam), phenobarbital, codeine, some antidepressants, beyond diminishing the effectiveness of contraceptives and other medications administered orally.¹⁸

CONCLUSION

Pain causes different sensations according to individual sensitivity and perception of the people. However, it is common for everybody the search for solutions to face it. In this scenario come in a variety of therapeutic measures faced by people, among them, the use of medicinal plants.

The families descendant of Pomeranians grow medicinal plants in their yards, making this representing one of the most therapeutic resources used by this community. It was reported the use of 20 plant species which, according to them, produce effects of analgesia.

With that, it is up to health professionals be alert about the measures of care adopted by the people. In the case of medicinal plants, scientific knowledge about the active ingredients and contraindications of plants used for the treatment of pain becomes important.

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