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RESEARCH

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Conhecimento sobre plantas medicinais e fitoterápicos de agentes comunitários de saúde de Ijuí/RS

Knowledge on medicinal plants and herbal medicines by community health agents of Ijuí/RS

Conocimiento sobre plantas medicinales y remedios herbarios de agentes comunitarios de salud de Ijuí/RS

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ABSTRACT

Objective: To assess the knowledge of medicinal plants and herbal medicines by Community Health Agents (ACS) in a ESF municipality Ijuí/RS. **Method:** Cross-sectional study, quantitative and qualitative, with 13 ACS. Data collection occurred in April 2014, and the analysis of quantitative data was done using descriptive statistics. The qualitative data were presented through the Collective Subject Discourse. **Results:** The main understanding of ACS on herbal medicine is related to the use of medicinal plants. Everyone agrees on the availability of plants and herbal medicines in the NHS, and provide information as to the mode of preparation and storage plants. Also believe that the incorrect use of plants can cause health hazards. **Conclusion:** There is a lack of knowledge about herbal medicine for ACS. Herbal medicine can and should be considered as a field of interaction of knowledge and practice that values and considers cultural resources, practices and local knowledge, with the involvement of the professional health care team.

Descriptors: Medicinal plants; Community Health Workers; Phytotherapy.

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RESUMO

Objetivo: Avaliar o conhecimento sobre plantas medicinais e fitoterápicos por Agentes Comunitários de Saúde (ACS) em uma ESF do Município de Ijuí/RS. **Método:** Estudo transversal, quanti-qualitativo, com 13 ACS. A coleta de dados ocorreu em abril de 2014, e a análise de dados quantitativos foi feita através de estatística descritiva. Já os dados qualitativos foram apresentados através do Discurso do Sujeito Coletivo. **Resultados:** O principal entendimento dos ACS sobre fitoterapia está relacionado ao uso de plantas medicinais. Todos concordam com a disponibilização de plantas e fitoterápicos no SUS, e prestam informações quanto ao modo de preparo e armazenamento das plantas. Também acreditam que o uso incorreto de plantas pode causar riscos à saúde. **Conclusão:** Existe uma lacuna de conhecimento a respeito da fitoterapia pelos ACS. A fitoterapia pode e deve ser considerada como um campo de interação de saberes e práticas que valoriza e considera os recursos culturais, práticas e saberes locais, com o envolvimento dos profissionais da equipe de saúde.

Descritores: Plantas medicinais; Agentes comunitários de Saúde; Fitoterapia.

RESUMEN

Objetivo: Evaluar el conocimiento de las plantas medicinales y los medicamentos a base de hierbas por los Agentes Comunitarios de Salud (ACS) en una ESF Municipio Ijuí/RS. **Método:** Estudio transversal, cuantitativo y cualitativo, con 13 CHA. La recolección de datos tuvo lugar en abril de 2014, y el análisis de los datos cuantitativos se realizó mediante estadística descriptiva. Los datos cualitativos se presentaron a través del Discurso del Sujeto Colectivo. **Resultados:** La comprensión primaria de ACS en la medicina herbal se relaciona con el uso de plantas medicinales. Todo el mundo está de acuerdo sobre la disponibilidad de plantas y hierbas medicinales en el NHS, y proporcionar información en cuanto a la forma de las plantas de preparación y almacenamiento. También creen que el uso incorrecto de las plantas puede causar riesgos para la salud. **Conclusión:** Existe una brecha de conocimiento con respecto a la fitoterapia por ACS. La medicina herbaria puede y debe ser considerado como un campo de interacción de los conocimientos y la práctica que valora y considera los recursos culturales, las prácticas y el conocimiento local, con la participación del equipo profesional de la salud.

Descriptor: Plantas medicinales; Trabajadores de la Salud de la Comunidad; Fitoterapia.

INTRODUCTION

The use of medicinal plants is influenced by popular belief, as well as by economic deprivation and poor access to medical/pharmaceutical care.¹ This reality influenced the creation, in 2006, of two policies within the Unified Health System (SUS). One is the National Policy on Integrative and Complementary Practices (PNPIC) that aims to expand the therapeutic options to users, with guaranteed access to medicinal plants and herbal medicines with safety, efficacy and quality.² The National Policy of Medicinal Plants and Herbal Medicines (PNPMF), seeks to ensure the population the most secure access and rational use of medicinal plants.³

Also aiming to promote and protect the health of the population in 1991, the Program of Community Health Agents (PCHA) was established, and from this, in 1994,

the Family Health Program (ESF), now changed to Family Health strategy (ESF).⁴ The ESF aims to change the current health care model, with predominated emergency care to a model that focus on the family, the environment in which lives, thus enabling the understanding of the health/disease.⁵

The team that makes up the ESF Community Health Agent (ACS) is the professional whose job is to identify the situation of families. Such profession was established in 2002 by Law nº 10.507, which characterizes this professional for the exercise of disease prevention and health promotion activities, through home or community, individual or collective actions.⁶ In this context, the ACS is an important factor in the implementation and strengthening of the SUS, because he/she becomes a link between health services and the community.⁷

Considering the use of medicinal plants and herbal medicines among families, the Ministry of Health indicates that this is one of the areas in which the ACS must seek and improve knowledge. This is justified by the fact that this professional represents a source of information to users of SUS and can answer questions about the statement, preparation method, toxicity of medicinal or herbal plants, aiming at a rational use of these therapies by population.⁷

Disseminate information to the public about the use of plants is important, considering that the incorrect use, as well as misidentification and lack of knowledge about the form of preparation, cultivation and storage can cause or worsen many health problems.⁸

In this context, this study aimed to evaluate the knowledge of medicinal plants and herbal medicines by Community Health Agents in an ESF of the municipality of Ijuí/RS.

METHOD

This is a cross-sectional and qualitative study. The field research was carried out in a unit of the Health Strategy of the Family of the municipality of Ijuí/RS.

The study included all ACS, of both genders, older than 18, who worked in the mentioned FHS, and who agreed to participate voluntarily. To ensure the anonymity of the participants, we used the ACS acronym, followed by a cardinal number as the sequence of interviews. Data collection occurred in April 2014, in two meetings, which are recorded.

It was built a data collection instrument containing variables related to socioeconomic profile of ACS, such as gender, age, educational level, marital status, time working as ACS. The qualitative variables were addressed: a) What do you understand by herbal medicine?; b) What do you think about the provision of medicinal plants and herbal medicines in SUS?; c) What are the information that you provide to users as the popular name, method of preparation of tea (infusion, decoction and maceration), part of the plant used, display and storage location?; d) Do you believe that medicinal plants and herbal medicines can cause a health risk? Which are?. These questions were answered

handwritten by the respondents. Also a group conversation, in which they discussed other questions of ACS who were not included in the instrument, was performed.

Quantitative data were compiled in tables through the software Statistical Package for Social Sciences (SPSS) (version 18.0), being carried out a simple descriptive analysis, with mean and standard deviation. Qualitative analysis was done through the Collective Subject Discourse Technique (DSC).⁹ The implementation of this technique occurred in three stages: the first stage selected the key expressions from the speech of each participant in the study, for instance, the continuous or discontinuous segments of speech that reveal the main focus of its content; the second stage was characterized by identifying the main idea of each of the key expressions. That moment was formed in the synthesis of the content of such expressions; the third stage, the key phrases relating to central ideas in a speech synthesis, which depicts the DSC, were gathered.

The project was approved by the Research Ethics Committee of Unijuí under opinion substantiated nº 506,694 and CAAE 24373913.2.0000.530.

RESULTS

The interviews were conducted with 13 ACS, all female, 53.8% were single, with a mean age of 32.7 ± 8.19 years, minimum 20 years and maximum 46 years and 92.3% had completed high school. The working time in the profession, 53.8% work for six months in this activity. The DSC results are presented in accordance with the central ideas of the answers of the questionnaire, and are described in Tables 1, 2, 3 and 4.

The main understanding of ACS on herbal medicine is related to the use of medicinal plants, and the results will be discussed in Table 1.

Table 1 - Central idea and collective subject discourse of community health agents in response to the question: "What do you mean by herbal medicine?"

MAIN IDEA	COLLECTIVE SUBJECT SPEECH
Herbal medicines	Are medicines based on medicinal herbs, tea or capsules. (ACS1) herbal medicines. (ACS2, ACS3)
Medicinal plants	It is the study of medicinal plants and their applications in curing diseases. (ACS4, ACS5) treatment based on homemade teas. (ACS7) is the study of medicinal plants. (ACS 9) Use with medicinal plant with popular knowledge. (ACS10) I understand that herbal medicine is natural medication, for instance, a good example of teas. (ACS 6) The use of plants in medicine. (ACS 11) Science studying herbs/tea as a treatment of disease. (ACS 8)
Complementary medicine	More natural complementary medicine. (ACS12)

Besides the results described in Table 1, a professional introduced having a greater understanding of phytotherapy, reporting:

"As a lay person, I believe it is a kind of alternative treatment for various diseases using medicinal plants to treat them after passing them through a kind of industrialization." (ACS13)

Regarding the availability of medicinal plants and herbal medicines in SUS to assist in the treatment of various diseases, all ACS believe that patients have a more natural treatment with the use of medicinal plants and herbal medicines, reducing the use of manufactured drugs. Table 2 describes the views on this acceptance.

Table 2 - Central Idea and Collective discourse of community health agents in response to the question "What do you think of the use of medicinal plants and herbal medicines are available through SUS?"

MAIN IDEA	COLLECTIVE SUBJECT SPEECH
Agree	It would be interesting, since it would reduce the use of conventional drugs. (ACS13) In my opinion it would be valid because it is often unnecessary chemical medications that can harm the body. (ACS 1) I would find it interesting if everyone believed they could improve through the plants, natural medicines. (ACS 2) I think it would be great because, reduces the use of laboratory medication bringing more quality of life. (ACS 10) is a good option because patients would like more treatments and would follow correctly. (ACS 6) It would be healthier and would not harm either the body of the users as it has a need to take up to 10 tablets daily. (ACS 7 and 12) I would like them to be available through SUS. (ACS 4, 5 and 8) For me it would be a good option as well as being less harmful to health. (ACS 3 and 9) It would be great because they are not processed and do not cause much damage to the people's body. (ACS11)

Knowledge of the ACS on popular name, method of preparation, information and storage location are shown in Table 3. According to the interviews, the infusion was the most suitable preparation method; as the storage, they recommend that the dried medicinal plants should be stored in a clean container, dry, airy and cover.

Table 3 – Main idea and Collective discourse of community health agents in response to the question “What is the information that you provide to users as the popular name, method of preparation of tea (infusion, decoction and maceration) of the plant used, display and storage location”

MAIN IDEA	COLLECTIVE SUBJECT SPEECH
Preparation method	It depends on the type of tea, more delicate teas only infusion, thicker leaf teas or roots, steeping makes decoction and leaves as boldo and wormwood usually used for stomach. (ACS1) Normally infusion and maceration. (ACS12) infusion. (ACS 2, 3, 6, 7, 11 and 13) Do not boil the tea, put the leaves in a cup and put hot water in a saucer on top and leave for a while (infusion). Thicker sheets must be macerated, for example, wormwood. And decoction must be cooked plants, for example, guaco. (ACS 8)
Storage location	Keep in a cool, dry place. (ACS6) Keep them in a cool place and pots after drying them. (ACS11) Store in a clean container with a lid, not leave it one day to the other, and at proper temperature. (ACS 7) Keep in a dry place with care access insects and animals. (ACS 10)
Plants typically used	Normally use chamomile, marcela, lemongrass and Boldo. (ACS 2 and 3) Guaco, wormwood, boldo, chamomile and marcela. (ACS 4 and 5)

Also related to the question of Table 3, the ACS 9 reported:

“I’m no expert, but, I would like to know, or rather to learn.”

Regarding the risk of using medicinal plants and herbal medicines, the ACS believe that the misuse and with no basis can cause injury to the health of patients; these data are discussed in Table 4.

Table 4 – Main idea and collective subject discourse of community health agents in response to the question “Do you believe that medicinal plants and herbal medicines may cause some risk to health What?”

MAIN IDEA	COLLECTIVE SUBJECT SPEECH
Believe	Yes, especially when pregnant, because some teas can be abortifacient, one can make blood pressure drop. (ACS 7) Yes, if taken in large quantities can cause overdose, as well as manufactured drugs. Can happen kidney problems, diarrhea, drop in blood pressure or change in blood pressure. (ACS 5 and 8) When used improperly, can harm bringing health risks, such as diarrhea, vomiting, pressure drop and low glucose. (ACS 4) I suppose so, if they were used in the wrong way. (ACS9) In some cases, depending on the type of tea used and the amount slight damage may occur to health. (ACS 1) Yes, it depends on the patient’s condition. (ACS 2 and 12) Yes, using improperly, poisonings, allergies. (ACS 13) Yes, in pregnant women, elderly heart, babies. (ACS 10 and 11)
Do not believe	I don’t think so. (ACS 3)

Also related to the question of Table 4, the ACS 6 reported:

“Medicinal plants and herbal medicines in overuse can harm health. Some types of overused teas can bring health problems.”

In addition to the questions that were addressed in the instrument, the ACS had other questions as: *What is the ideal way to prepare teas?*, and the ACS 10 questioned:

“What are the medicinal plants that can be cooked and which cannot?”

In addition to these questions, there were others, such as the ACS 5, who asked: *The aloe vera can be intaken in place of water?*, once many of the patients are using this way” also questioned whether green tea and artichoke help the weight loss process.

DISCUSSION

Half of respondents reported working only six months in the profession, this is justified by the fact that the ESF surveyed have initiated activities recently and ACS are hired after the municipality’s public tender in 2012.¹⁰

The ACS demonstrated not having clear and objective knowledge about what is herbal medicine. Thus, several were their thoughts on the subject. Some argue that herbal medicine are medicinal plants, which is complementary

medicine, or simply are medicinal plants, demonstrating the low understanding of the participants. Only a professional showed to have a better understanding, as highlighted in the results.

Phytotherapy is a treatment method that uses medicinal plants in different preparations without the use of isolated active substances, even though of plant origin, with the guidance of a qualified professional.¹¹ Herbal medicine is the product obtained from the medicinal plant, or their derivatives, with prophylactic, curative or palliative purpose.¹²

Pereira and colleagues conducted a study in the city of Patos - PB in 2009, with 180 people, 21 health professionals and of these, 13 ACS, with the objective of contributing with knowledge and lessons in herbal medicine, in the management of medicinal plants and preparation of home remedies. It was observed that 87% of participants reported using medicinal plants for the treatment of diseases. Furthermore, this study conveys that the ACS have a poor knowledge about the herbal medicine and practices. As in this study, many had difficulty in conceptualizing phytotherapy, demonstrating the lack of training for these professionals to orient the community about the use of medicinal plants and herbal medicines.¹³

Regarding the availability of medicinal plants and herbal medicines in SUS, all ACS are in favor of the deployment. According to them, there would be a reduction in the use of manufactured drugs, increasing the use of alternative treatment practices, which are more natural and do not cause so much damage and risks to the health of patients. According to the ACS, users follow the treatment correctly without stopping it for lack of adherence, side effects or even by lack of financial resources.

Study of Cruzand Sampaio, with 11 health professionals, among them five ACS, aimed to verify the health professionals' view as the inclusion of Integrative and Complementary Practices (PIC) in the SUS in a community served by ESE. The results show that 82% of professionals understand this inclusion as favorable since it is another option for health care. However, the study does not specify the professionals that were contrary to this practice¹⁵. Already Paranaguá and colleagues also found similar data, because 86% of ACS accept the deployment of PIC in the public health system and they pointed as the main advantages low cost, improved quality of life for the loyalty of the population and less adverse effects.¹⁴

The information provided for the replacement of drugs for medicinal plants, in the ACS speeches, shows that there is a need for continuing education for health professionals to obtain information from plants user and guide on the importance of maintaining the pharmacological therapy patients with chronic diseases. Moreover, it is necessary to direct that in some cases erroneous self-diagnosis and self-treatment can mask more serious symptoms and serious health conditions.¹⁵

The incidence of interactions between herbal and conventional medicines is not fully known and most of the data is of experimental analysis. It should consider the variability of the chemical composition of medicinal plants and also the variability among patients, and be aware of reports of possible adverse reactions. It should also be taken greater care in the use of narrow index therapeutic drugs and special groups of patients such as the elderly and pregnant women.¹⁶

According to the interviewees, the increased use of medicinal plants and herbal medicines could cause a decrease in the use of manufactured drugs. In a study by Veiga Junior, in Rio de Janeiro, on the use and customs of the use of medicinal plants by the population and their acceptance and knowledge by health professionals, it shows that this is not always what happens. Often patients end up using the two therapies together, occurring risk of interactions between plants and allopathic drugs. In this study, 47.5% of participants use formulations containing medicinal plants together with allopathic medicaments. On the other hand, 52.4% reported using the medicinal plants to replace allopathic medicine for judging that the latter is more expensive and does not solve the health problems.¹⁷

The interviewees said that medicinal plants are natural, with no toxicity and not health hazard. An ACS believes that medicinal plants and herbal medicines do not present a risk to health, believing that the "natural does not hurt." However, other interviewees demonstrated knowledge about the risks related to misuse. These cited some undesirable effects such as diarrhea, vomiting, drop in blood pressure, poisoning and allergies. Although these interviewed showed to know the risks related to the use of plants, they could not correlate specifically which plants cause which adverse effects. França, Souza and Baptista, as a misconception, point out the lack of toxicity of the plants because there are variety of medicinal plants, and the benefits that can be generated with its consumption can cause toxicity by the presence of pharmacologically active and toxic constituents, which can cause health risks.¹⁸

Some ACS reported that there are plants harmful to the health of pregnant women, causing miscarriage. Rodrigues and colleagues report that many plants used in daily life have aggressive substances, providing toxicological risks. The most worrying effects of the indiscriminate use of medicinal plants are embryotoxic, teratogenic and abortifacient, once the constituents of plants can cross the placenta and reach the fetus.¹⁹ The plants cited as potentially toxic *Arnica montana* L., *Artemisia vulgaris* L., *Stryphnodendron polyphyllum* Mart., *Vernonia condensata* Baker, *Echinodorus macrophyllus* (Kunth) Micheli, *Phyllanthus amarus* Schumach. & Thonn., *Mentha piperita* L., among others. It is important that health professionals are aware of the proper use and toxicity of the plants to aid in the correct indication to the population, especially pregnant women.

Regarding information on popular name, preparation method, information, storage location of medicinal plants,

one reported that ACS would like to learn more about it. Thus, we see the need for training these professionals. In the study by Cross and Sampaio it was found that professionals had never participated in the course, training, lecture or other activity related to PIC, and as a result, knowledge of the subject gave up only through the media and by contact with family, friends and neighbors.²⁰

In this study, some ACS reported the transmission of basic information and the one acquired by popular and familiar knowledge of preparation methods of medicinal plants, such as “use infusion to the most delicate tea preparation and decoction for thicker leaves or roots, as maceration it is indicated for the preparation of the boldo or wormwood tea.” These guidelines are in accordance with those described in the literature.²⁰

As for information on indication of medicinal plants, the ACS also guide patients according to their popular and familiar knowledge. The most suitable plants to users and even used by the interviewees are: *Achyrocline satureioides* (Lam) DC (chamomile), *Matricaria recutita* L. (chamomile), *Cymbopogon citratus* (DC) Stapf (lemon balm), *Mikania glomerata* Spreng (guaco), *Plectranthus barbatus* Andrews (false boldo), *Artemisia absinthium* L. (wormwood), which are used by the population to assist in symptomatic treatment of minor problems such as digestive problems. In the study by Battisti and employees in the municipality of Palmeira das Missões/RS, with 51 inhabitants, verified the use of these plants found in this study, in addition to other species²¹. These results are similar, as both surveys have been conducted in nearby municipalities, in the same state.

Satisfactory results, as well as the beliefs these practices, lead the ACS to point them to the assisted families. However, to achieve quality and security in assistance to the population, related to the use of integrative practices, it is recommended the planning of actions for training ACS and application of PNPIC in health services, as advocated in the public health policies in the country.¹⁴

Regarding the storage, the interviewees showed good understanding as they guide the patients to store the plants, once dried, in a clean container, dry, airy and covered. This information is consistent with the literature. In addition, it is recommended that the storage should be individualized for each species, for the possible shortest time, due to the loss of plant active substances being proportional to the time by which they are stored.²²

The ACS at the end of the interview, including regarding the oral use of *Aloe vera*, raised some doubts. According to the Health Surveillance National Agency (ANVISA), *Aloe vera Mill.* should not be consumed in this way because there is no proof of use security, and there is no registration of *Aloe Vera* based drug indicated for internal use. This regulation also argues that there are no adequate toxicological studies and lack standardization or specification.²³ Given the above, *Aloe vera* is recommended for external use only, being

indicated for the topical treatment of burns of 1st and 2nd degree and as an adjunct in cases of psoriasis vulgaris.²⁴

The plants green tea (*Camellia sinensis* (L.) Kuntze) and artichoke (*Cynara scolymus* L.) were mentioned as aids in weight loss. In a systematic review conducted in 2012, the authors concluded that green tea based preparations led to a small weight loss in obese and overweight adults, with no clinical significance. There was also no significant result in the maintenance of this weight loss.²⁵ *Cynara scolymus* is indicated, in the National List of Essential Medicines (Rename) of 2013, for functional dyspepsia, mild to moderate hypercholesterolemia, besides stimulating the secretion of bile.^{22,24,26} Thus, according to the literature, there was no scientific evidence about the use of these plants to aid in weight loss.

This study had some limitations, such as conducting the research with only a ACS team. A rigorous survey of the plants best suited to the population was also not performed. It is suggested expanding the study and bringing the results to the Municipal Health Department, with a training proposal in the area for primary care professionals.

Herbal medicine can and should be considered as a field of interaction of knowledge and practices that values and considers cultural resources, practices and local knowledge, biodiversity conservation, and involving the health team professionals. The implementation of phytotherapy in SUS aims to enrich the therapeutic possibilities, especially the social and educational aspects in a perspective of promoting health and care.²⁷

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