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ORIGINAL ARTICLE

THE USE OF MEDICINAL PLANTS FOR ELDERLY USERS OF A BASIC FAMILY HEALTH UNIT

O USO DE PLANTAS MEDICINAIS POR IDOSOS USUÁRIOS DE UMA UNIDADE BÁSICA DE SAÚDE DA FAMÍLIA

EL USO DE PLANTAS MEDICINALES POR PERSONAS MAYORES USUARIAS DE UNA UNIDAD BÁSICA DE SALUD DE LA FAMILIA

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ABSTRACT

Objective: characterizing the use of medicinal plants for elderly users of a Family Basic Health Unit. **Method:** a sectional study of a quantitative approach, sample of 94 elderly in the city Campina Grande/PB with which there was applied a semi-structured questionnaire. Data were subjected to statistical program SPSS 17.0 for Windows. It was approved by the Research Ethics Committee, Protocol n. 0326.0.133.000-11. **Results:** there was revealed that 90,4% of subjects were under medicinal plants therapy, the most prevalent Boldutree (*Peumus boldus*) (17%). The vast majorities are self-medicated with medicinal plants (51,1%) and manufactured drugs (92,6%). Much (98,8%) of seniors reported they had not received any information from any health professional, being mentioned that knowledge on the use of medicinal plants was acquired with relatives (78,72%). **Conclusion:** there is need to develop educational activities that will raise awareness about the dangers of indiscriminate use. **Descriptors:** Self-medication; Phytotherapy; Medicinal Use; Aging Health; Primary Health Care.

RESUMO

Objetivo: caracterizar o uso de plantas medicinais por idosos usuários de uma Unidade Básica de Saúde da Família. **Método:** estudo seccional com abordagem quantitativa, amostra de 94 idosos, no município Campina Grande/PB, com os quais foi aplicado um questionário semiestruturado. Os dados foram submetidos ao programa estatístico SPSS 17.0 para Windows. Foi aprovado pelo Comitê de Ética e Pesquisa, protocolo n. 0326.0.133.000-11. **Resultados:** Revelaram que 90,4% dos idosos faziam uso de plantas medicinais, sendo mais prevalente o boldo (*Peumus boldus*) (17%). A grande maioria se automedicava com plantas medicinais (51,1%) e com medicamentos industrializados (92,6%). Boa parte (98,8%) dos idosos relataram não terem recebido nenhuma informação de qualquer profissional da saúde, sendo mencionado que o conhecimento sobre a utilização de plantas medicinais foi adquirido com parentes (78,72%). **Conclusão:** há necessidade do desenvolvimento de ações educativas que venham conscientizar a população sobre os riscos do uso indiscriminado. **Descritores:** Automedicação; Fitoterapia; Uso de Medicamentos; Saúde do Idoso; Atenção Primária à Saúde.

RESUMEN

Objetivo: caracterizar el uso de plantas medicinales para los usuarios de edad avanzada de una Unidad Básica de Salud de la Familia. **Método:** es un estudio seccional con enfoque cuantitativo, con una muestra de 94 ancianos en la ciudad de Campina Grande/PB, con los que se aplicó un cuestionario semi-estructurado. Los datos fueron sometidos al programa estadístico SPSS 17.0 para Windows. Fue aprobado por el Comité de Ética en la Investigación, Protocolo n. 0326.0.133.000-11. **Resultados:** se reveló que el 90,4% de los sujetos eran tratados con plantas medicinales, el más prevalente el Boldo (*Peumus boldus*) (17%). La gran mayoría son auto-medicados con plantas medicinales (51,1%) y los medicamentos manufacturados (92,6%). Gran parte (98,8%) de los adultos mayores informó que no había recibido ninguna información de cualquier profesional de la salud, se ha mencionado que el conocimiento sobre el uso de plantas medicinales fue adquirido con los familiares (78,72%). **Conclusión:** hay necesidad de desarrollar actividades educativas que fomenten la sensibilización acerca de los peligros del uso indiscriminado. **Descriptores:** La Automedicación; Fitoterapia; Medicamentos; La Salud en el Envejecimiento; Atención Primaria de Salud.

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INTRODUCTION

To provide his survival, man accumulates information about the environment that surrounds him, and between this knowledge is part of the information about the plant world with which that society is in contact.¹ From the beginning of its existence, humanity makes use of plants for health protection and relief from their ailments. Plants with therapeutic power were used empirically and traditionally, passing the knowledge to each generation, leaving mainly the elderly the preservation and transmission of knowledge about the therapeutic indications of medicinal plants.^{2, 3, 4}

The practice of using medicinal plants is quite evident in developing countries, where much of the poor do not have access to manufactured drugs.⁵ Other factors also contribute to the increase in the use of medicinal plants are difficult people's access to care medical and the trend, existing today, the use of natural products.⁶

The ethno-botanical research aimed at studying the relationship between medicinal plants and people in a multidisciplinary way, with the socio-cultural circumstances of the population, as well as rescue and appreciation of traditional knowledge and cultural diversity.⁵

While it is important that popular use of medicinal plants in the treatment of diseases, when it occurs without guidance from a legally qualified professional can be dangerous, considering that such products are bioactive chemicals that can cause physiological effects both beneficial as harmful. Furthermore, this risk is compounded in the elderly whose major organ systems responsible for processing pharmacokinetic bioactive since they are, in most cases, fragile.^{7, 8, 9}

OBJECTIVE

♦ Characterizing the use of medicinal plants for elderly users of a Family Basic Health Unit.

METHOD

This is a sectional study of a quantitative approach, which was conducted between the months of September to November 2011 in the neighborhood of Malvinas in the city of Campina Grande/PB. The neighborhood Malvinas is located in the west of the city of Campina Grande and has its Family Health teams divided into five areas, one of the

Family Health Unit (BFHU) Malvinas V, which serves 1289 families.

Initially we performed the pilot study with 130 homes, so that there was the questionnaire adjustment with local realities. After the pilot study the population numbers under review increased to 702 families because, in 457 houses visited people living non-users of BFHU. All the houses were visited and only one person in each household was interviewed. At the end of this phase of the research, it was found that 138 (21%) households, residents were absent, 79 (12%) refused to participate in the study, 10 (2%) had only persons under 18 years and 9 (1%) did not live anyone. The houses where the residents were absent were visited again (twice) on different days and times, including weekends. Therefore, the research sample consisted of 420 - 64% of homes visited - residents and users of BFHU Malvinas V, and of this total of respondents, 94 people were older than 60 - this age group being studied in this work.

The elderly answered a semi-structured questionnaire (adapted from MARÇAL¹⁰) with dichotomous questions, discursive and multiple choices. This data collection instrument aimed to identify the profile of respondents and information on the acquisition and uses of medicinal plants by these elderly. Data were analyzed statistically in order to test the hypotheses; for this, we used the SPSS 17.0 software for Windows. To assessing the significance of the independent variables (gender, socioeconomic profile, level of education and income) - with dependent (use of medicinal plants, self-medication with herbal and self-medication with allopathic medicines) used the nonparametric test of Chi Pearson square, with a significance level of 5% ($p < 0,05$). When necessary we used the correction for continuity Yates. The social class of the population was classified according to the criteria of economic status in Brazil, the Brazilian Association of Research Companies - ABEP.¹¹

The project was approved by the Research Ethics Committee of the State University of Paraíba, with the protocol 0326.0.133.000-11. The interviews were conducted only after the signing of free and informed consent.

RESULTS

The results showed that among the 94 elderly, 83% were female. The most prevalent characteristics among respondents were age up to 62 years old (27,7%), class D (30,9%), average income than the minimum wage

(33%), with schooling 4th to 7th years of elementary school (30,9%), as can be seen in Table 1.

Table 1. Percentage distribution of the elderly respondents regarding the socio-economic profile (UBSF Malvinas V, Campina Grande - PB, 2011).	
Age (in years)	
Until 62	27,7%
63 - 66	23,4%
67 - 74	25,5%
75 or over	23,4%
Total	100%
Social Class	
B2	10,3%
C1	17,9%
C2	32,1%
D	37,2%
E	2,6%
Total	100%
Family Income	
1 SM*	33%
1 to 2 SM	28,7%
2 to 3 SM	28,7%
More than 3 SM	9,6%
Total	100%
Schooling	
3 rd grade of elementary school	28,7%
4 th to 7 th grade of elementary school	30,9%
8 th grade of elementary school in the 2 nd grade of high school	25,5%
3 rd grade of high school until Incomplete Higher Education	10,6%
Complete Higher Education	4,3%
Total	100%

*Minimum Wage

Regarding the use of medicinal plants, 90,4% of subjects were using. Of those who did the use of medicinal plants 85,9% were female. 40 medicinal plants have been reported, where the most cited and their use can be seen in Table 2. In the table 3, the forms of use of medicinal plants can be observed on the part of respondents.

Table 2. Most medicinal plants used by elderly people from the BFHU Malvinas V, Campina Grande - PB, 2011 and its main use.		
Popular Name	Scientific Name	Use
Boldutree (17%)	<i>Peumus boldus</i> Mol. ¹	Digestive
Lemongrass (13,8%)	<i>Melissa officinalis</i> L. ¹²	Soothing
Holy grass (6,4%)	<i>Cymbopogon citratus</i> (DC) Stapf. ²	Soothing or of Good Taste
Anise (6,4%)	<i>Pimpinella anisum</i> L. ²	Soothing
Peppermint girl (6,4%)	<i>Mentha piperita</i> L. ¹²	Painkiller
Swine cress (3,55%)	<i>Chenopodium ambrosioides</i> L. ¹²	Respiratory problems
Hot Mint (6,67%)	<i>Marrubium vulgare</i> L. ¹²	Respiratory problems
Bay (5,3%)	<i>Laurus nobilis</i> L. ²	Digestive
Chamomile (3,2%)	<i>Matricaria chamomilla</i> L. ¹²	Soothing
Elderberry (2,1%)	<i>Sambucus nigra</i> L. ¹²	Flu symptoms
Cinnamon (2,1%)	<i>Cinnamomum zeylanicum</i> Blume. ²	Low pressure, colic, diarrhea and of Good Taste
Aloe (2,1%)	<i>Aloe Vera</i> L. ¹³	Digestive
Watercress (2,1%)	<i>Nasturtium officinale</i> R. Br. ¹	Flu and of Good Taste
Bush of seven colors (2,1%)	<i>P. barbatus</i> Andrews. ¹⁴	Digestive

Table 3. List of plants with higher frequency reporting usage, regarding the part used, staging form, frequency of use and route of administration (FBHU Malvinas V, Campina Grande - PB, 2011).

Plant	Part of plant used	Way of preparation	Frequency of use (daily)	Route of administration
Boldutree	Leaves	Infusion	2	Oral
Lemongrass	Leaves	Boil	2	Oral
Holy grass	Leaves	Boil	2	Oral
Anise	Seed	Boil	1 or 2	Oral
Peppermint girl	Leaves	Infusion	2	Oral
Swine cress	Leaves	Grinded	1	Oral
Hot Mint	Leaves	Infusion	1	Oral
Bay	Leaves	Boil	1 or 2	Oral
Chamomile	Leaves	Boil	1 or 2	Oral
Elderberry	Leaves or Flowers	Infusion	1	Oral
Cinnamon	Stem	Boil	1	Oral
Aloe	Leaves	Raw	3 or more	Oral
Watercress	Leaves	Boil	1 or 2	Oral
Bush of seven dolors	Leaves	Infusion	1 or 2	Oral

Among the elderly respondents, the vast majority are self-medicated with herbal and synthetic drugs when they were sick, corresponding to a prevalence of 51,1% and 92,6%, respectively. In Table 4 shows the relationship between the gender of

respondents and self-medication medicinal herbs. It is noteworthy also that the majority (55,9%) of the elderly believed in the belief that because they are natural, plants did not cause any harm to health.

Table 4. Prevalence of self-medication for plants among elderly users from FBHU of Malvinas V, Campina Grande-PB, 2011.

Gender	Self-treatment with plants						Qui ²	p**
	No		Yes		Total			
	n	%	n	%	n	%		
Male	14	29,2	2	4,3	19	17	8,562	0,003
Female	34	70,8	44	95,7	78	83		
Total	48	100	46	100	94	100		

** Continuity correction of Yate

Among all elderly respondents, 98,8% reported not having received the guidance of a health professional about the use of medicinal plants. Survey participants reported that knowledge of medicinal plants was acquired with relatives (78,72%), friends (15,96 %), magazines (2,13%), media (television - 1,06%), and others (2,13%). When

asked if they indicated the use of medicinal plants for other people, 76,34% of seniors answered yes.

The reasons that led elderly respondents to resort to the use of medicinal plants were mainly because they thought the disease was simple (27,1%) and for being an affordable practice (25,9%), as shown in the table 5.

Table 5. Reasons that took elderly to be encouraged to the use of medicinal plants (FBHU Malvinas V, Campina Grande - PB, 2011).

Why have resorted to the use of medicinal plants	
Thinking it was a simple disease	27,1%
Practice accessible	25,9%
Indication	20%
Believe to be more effective than synthetic medications	12,9%
Low cost treatment	4,7%
Other	9,4%
Total	100%

DISCUSSION

Medicinal plants are part of popular culture and are considered a major factor in maintaining the health of the people. Their use for therapeutic is quite proven by several ethno-botanical studies carried out in different parts of the country.¹⁵⁻⁶⁻⁷

In the case of a specific audience, the elderly, it was found that the vast majority made use of medicinal plants. In a study⁸ the 135 seniors who participated in the research developed in the South of Santa Catarina, 64,4% use medicinal plants to treat their ailments.

Given this relevant use of medicinal plants, it was found that women who were more consumed (85,9%), but we cannot say that this practice is typically females ($p = 0,66$); however, such data shows the important role that women have in the transfer of knowledge between generations and the responsibility that it assumes the implementation of care on the health of family members, using medicinal plants for their achievement.¹⁷⁻⁸

A study¹⁸ with predominantly elderly female, aged between 60 and 69 years old living in the catchment area of a Health Unit, located in an urban area in the east side of the city of Porto Alegre, found that most elderly respondents have not completed elementary school and middle income ranging from 1 to 10 MW. These data were confirmed in relation to education, since most of the surveyed elderly studied at between 4th to 7th grades of elementary school, however the average wage income was 1 MW.

The use of medicinal plants is seen as an option in the search for therapeutic solutions, since they are used in the treatment of diseases of all kinds, and especially for low-income people, because it is an efficient alternative, cheap and culturally widespread.¹⁹

In the state of Paraíba, where have performed several studies on the use of medicinal plants, we observed a homogeneity in this approach, the detection of these plants are being used in different cities. As an example, Pedras de Fogo, in Paraíba, where there was a greater use of lemongrass (*Cymbopogon citratus* (DC.) Stapf, girl leaf mint (*Mentha x villosa* Huds) and lemon grass (*Lippia alba* (Mill.) N.E Br.)²⁰, a similar result to that found in this study with elderly from Campina Grande. Just as in the cities of Gurinhem²¹, Pedra Polida²² and Areia²³ it was able to identifying an important cultural factor in the use of these plants in the State.

The use of medicinal plants among the elderly stands, in most cases, as self-medication, even having accessibility to allopathic medicines.⁴ As could be seen, the elderly, largely perform self-medication - whether by herbal or synthetic drugs. Thus corroborating research developed⁷ in North Central region of the State of Rio de Janeiro, where the total respondents, 65,6% performed self-medication. Another study⁸ also found that 70,8% of elderly respondents reported performing self-medication.

Self-medication is a common practice in the Brazilian population is defined as the use of products for maintenance, prevention or treatment of health problems, without

limitation, guidance or monitoring of a qualified professional.²⁴

In addition, the population uses indiscriminately medicinal plants due to their lack of knowledge about the possible existence of toxicity - that can cause adverse reactions to the body. It is noteworthy that, in most cases, the use of medicinal plants is associated with and/or replacing the synthetic drugs. Unlike synthetic drugs, the use of plants does not have the same controls of prescription and sale, which could increase the frequency and risks of self-medication.^{1, 25}

The unnecessary expenses, delays in diagnosis and appropriate therapy, are one of the disadvantages experienced by older adults with self-medication²². But those are not the only ones, because due its typical characteristic features of senescence, the elderly are subject to the emergence of adverse or allergic reactions, poisoning, hospitalization, masking some adverse effects of medications, among others.²⁵

The risks that the elderly suffer are valid not only for self-medication with synthetic drugs, as well as with plants, because they, self-medication medicinal herbs is a dangerous practice, especially if it is done concurrently with the allopathic medicine or replacing it, further increasing the risks to the health professional is not informed.⁷ This risk is observed in the present study, since 98.8% of the elderly have not received guidance from a health professional about the use of medicinal plants, it is believed that if configured by the fact that many of the elderly only reporting the use of medicinal plant the health professional when the same cause adverse reactions. This assertion is further confirmed with the study of Veiga Jr⁷, where 59.4% of respondents reported that only notify the doctor when appeared some undesirable symptom or never notified.

Obtaining medicinal plants in this study was similar to that reported in another study²⁵, where 55,2% of people surveyed plants obtained with friends and family, and its ease of access, these forms of procurement are an important factor for self-medication. Without any rational basis, self-medication, which is given by the cultural heritage, is the result of low purchasing power, ease of access, insecurity in health services, among other factors.²⁷

Educational campaigns on the rational use of medicinal plants should be aimed at the general population, but they must be intensified by the elderly have some organic specificities, such as lower rates of renal excretion and hepatic metabolism, which can

increase the concentration plasma of some substances and thus cause damage to health.^{2,26}

CONCLUSION

Based on what has been shown in this research, it is concluded that the practice of using medicinal plants for the elderly is quite common, especially through self-medication. Self-medication, either by synthetic medicines or medicinal herbs, can bring risks to health and specifically to the elderly, since it has specific characteristics from a physiological point of view. So it makes of great importance that health professionals be alert for the development of educational activities so that will raise awareness about the dangers of indiscriminate use of medicinal plants.

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