Scientific Electronic Archives
Issue ID: Sci. Elec. Arch. Vol. 10 (3)
June 2017
Article link
http://www.seasinop.com.br/revista/index.php?journal=SEA&page=article&op=view&path%5B%5D=437&path%5B%5D=pdf
Included in DOAJ, AGRIS, Latindex, Journal TOCs, CORE, Discoursio Open Science, Science Gate, GFAR, CIARDRING, Academic Journals Database and NTHRYS Technologies, Portal de Periódicos CAPES.

ISSN 2316-9281

Phytotherapy and medicinal plants: the perception of nurses in Family Health Units (FHU)

F.F. Francisco, D.L. Pereira, R. S. Brito, C. Schuck, R.G. Maria, C. Reis, P.P. Cavalcanti

Federal University of Mato Grosso, Campus Sinop.

Author for correspondence: pacificapinheiro@gmail.com

Abstract. Medicinal plants and phytotherapy are forms of alternative therapy, so it is necessary that health professionals are trained to use them in primary health care. This research had the aim to draw the profile of nurses of the municipality of Sinop/MT, regarding the use of medicinal plants/phytotherapic herbs, as well as the interest of implementing this practice to the daily life of the FHU. It is an exploratory study with a quantitative and qualitative approach; data were collected from March to July 2012 in all FHUs and 14 nurses participated in the study. Among the professionals interviewed, 50% used medicinal plants/phytotherapic herbs and the other 50% denied using this practice. However, when asked about the possibilities of implementing the prescription of this form of therapy in the FHU of the municipality, 78.57% said they were favorable. When asked about the opportunity to take an undergraduate course on medicinal plants, 100% answered that they would not attend. However, so that these therapies are rescued, it is necessary to invest in a new training policy and in a permanent process of human resources training, especially in Nursing, which plays a fundamental and direct role with the population, and has the opportunity to educate by clarifying about the proper use of medicinal plants and herbal medicines.

Keywords: Medicinal Plants, Nursing, Herbal Medicine, Complementary Medicine.

Introduction

Medicinal plants, as well as phytotherapy, are part of the so-called Traditional Medicine, which refers to "knowledge, skills and practices based on theory, beliefs and experiences of the most varied cultures, used for health maintenance, prevention, diagnosis, improvement or treatment of physical and mental illnesses", and may also be called Alternative or Complementary Medicine (Brazil, 2006).

The knowledge and practices of the therapeutic use of plants and herbal medicines are intrinsically related to the territories and their respective natural resources, as a part of the socio-cultural and economic reproduction of these people and communities, making essential to promote the rescue, recognition and valuation of traditional practices as elements for health promotion, as recommended by the World Health Organization (Brazil, 2007).

Thus, even with the advance of modern medicine, it is necessary that health professionals are trained on the use of medicinal plants and herbal medicines for a greater intervention in primary health care. In this context, Nursing is able to identify the health needs of users, directly intervening through health practices and knowledge, thus envisioning the promotion, prevention and recovery of health in the primary health care context (Bastos & Lopes, 2010).

Therefore, the follow-up of the transformative vision of values in contemporary society by nurses along with other professions contributes significantly to the discussion of issues related to quality of life and health promotion, especially with regard to the model of care that currently contemplates the individuals in their entirety, strengthening the rescue of millenarian alternative care practices (Heck & Roese & Piriz, 2011).

It is worth noting that the professional exercise of alternative practices by nursing professionals is legally supported under Resolution 197/97, of COFEN, which "establishes and recognizes Alternative Therapies as a specialty and/or qualification of the nursing professional having a course load of at least 360 hours "(Brazil, 1997). Thus, in the Family Health Units (FHU), nurses develop multiple activities in the field of care,

management and health education. With this, nursing seeks to approach this reality in an attempt to understand health care through the use of plants and phytotherapic substances, in order to broaden comprehensiveness, fostering research to approach, in practice, the care to each cultural group (Ceolin & Heckll & Barbieri, 2011).

The need to learn and to know the alternative practices of health treatment by nurses came with the approval by the Ministry of Health in 2006 of the National Policy of Integrative and Complementary Practices of the National Health System (PNPIC in Portuguese) that intends to implement these therapies in the primary health services. According to the PNPIC, health education strategies should be developed based on dialogue, in an exchange between scientific knowledge and popular knowledge, in which the professional and the client have much to teach and to learn (Brazil, 2006).

This ideal proposes the implementation of a more comprehensive health position, which extrapolates the curative procedures centered on the merely physical and mechanistic aspect of the care process, since this policy is centered on an expanded perspective of health that considers, besides the physical aspect, the social, cultural and emotional aspects of the human being, requiring a necessarily multidisciplinary approach (Souza & Muniz & Silva, 2006).

In this way, the objective of this work was to outline the profile of nurses in the city regarding the use of medicinal plants and/or phytotherapic substances, as well as the interest of implementing this practice in the daily life of the FHU of Sinop/MT.

Methods

The present study was carried out in the municipality of Sinop, in the north of the State of Mato Grosso, located nearby the highway BR-163. This is one of the main municipalities of the state and has about 114 thousand inhabitants (IBGE, 2009a).

This is an exploratory study with a quantitative and qualitative approach. The descriptive aspect observes, registers, analyzes and correlates facts or phenomena without manipulating them, with the purpose to discover, as accurately as possible, the frequency with which a phenomenon occurs, its relation and connection with others, its nature and its characteristics. It also seeks to know various situations and aspects of human behavior, providing the clear formulation of the problem and the hypothesis as an attempt to solve it (Cervo & Silva & Bervian, 2007).

Data collection was performed at all FHUs in the municipality of Sinop/MT, from March to July 2012, with all nurses working in the care of users of the Unified Health System (SUS), more specifically in FHUs. In total, 16 professionals were invited to participate in the study. Of these, two nurses refused to answer the questionnaire, totaling 14 professionals.

It should be emphasized that there was no risk of exposure to any of the interviewees in relation to the research, and after having received guidelines on the objective, risks and benefits of the study, participants signed a Free and Informed Consent Form, which was submitted to the evaluation of the Ethics Committee in Research with Human Beings, State University of Mato Grosso (UNEMAT), Campus of Cáceres/MT, under the protocol of approval No. 144/2011 CEP/UNEMAT. The study was conducted according to Resolution 196/96 of the National Health Council/Ministry of Health (Brazil, 1996), guaranteeing the anonymity of the interviewees. Nurses who refused to sign the Free and Informed Consent Form and those who did not complete the questionnaire were excluded from the study.

Results and discussion

Regarding the sample analyzed (n = 14), 85.72% of the interviewees were females and only 14.28% were males, showing that in the health area, especially in nursing, there is a prevalence of females. Trovo & Silva & Leão (2003) confirm this predominance of the female gender since the undergraduate period, as their study showed that, of a total of 178 of undergraduate nursing students surveyed, 89% were females and 11% were males.

This predominance is characteristic of an identity expressed in a context in which the subject is exposed to social transformations, especially regarding the origin of nursing. However, the professional's training, because it is a variable truth, is directly influenced by the social context in which the individual lives. Thus, nowadays, nursing has been remodeled with regard to the issue of the male or female gender, and even though the female gender still predominates, the presence of men has been increasing in the market (Padilha & Vaghetti & Brodersen, 2006).

Taking into account the origin, there were two significant differences in the data regarding the region of birth, that is, 57.13% come from the South region, 21.42% from the Midwest, 7.15% from the Southeast , 7.15% from the Northeast, and those who did not respond account for 7.15%.

However, it is noted that a large part of the sample comes from the Southern region and is descended from Europeans, where the use of medicinal plants is related to the climate, which is colder, similar to the European climate, where many herbs originate, such as Citrus Herb and Sweet Herb (Badke, 2008).

Regarding the time of training of the sample, 35.70% had less than 1 year to 5 years, 35.70% had from 5 to 10 years and 28.60% had more than 10 years. It is worth noting that the vast majority of the sample had attended undergraduate course ruled by Law No. 9394/96, which provides changes in the nurses' training process, which is no

longer focused on the biomedical model, considered to be mechanistic, and it is now centered on a holistic, humanized and contextualized model, graduating critical, creative and ethical professionals to work in the labor market (Brazil, 1996b).

These proposals have already been discussed in Brazil since the end of the 1980s, with the proposal of SUS. More recently, this discussion gained special relevance when the Ministry of Health (MOH) took the responsibility to guide the training of health professionals in order to meet the needs of SUS within its principles (Nascimento & Oliveira, 2010).

For Souza & Muniz & Silva et al. (2006), nursing schools, despite the new curricular guidelines, have not produced significant changes in nursing education in the country. Few professionals have still been trained in this proposal, and perhaps because of this the transformations in professional practice that have contributed to an assistance guided in the comprehensive care, valuing innumerable aspects, as the complementary medicine that values the community, have been insufficient.

When asked whether they had the opportunity to attend a discipline on the subject of medicinal plants during the undergraduate nursing course, 100% of respondents said no. Thus, Franca & Souza & Baptista (2008) report that training in the health area cannot be reduced to norms, mechanized rules, nor to simple reordering of disciplines and course loads, but rather, it needs to include a component that focuses on the alternative practices in all the Pedagogical Projects of the Undergraduate Courses of public and private schools that aim at the global approach of providing care.

When questioned whether they had witnessed cases of poisoning by herbal/ phytotherapeutic plants with medical diagnosis, 85.71% answered no, and only 14.28% said they had witnessed this fact. According to the National Toxicological Information System (SINITOX), the Central-west region recorded 251 cases of poisoning by plants, accounting for 2.06% (Brazil, 2009b). In view of these contradictory data, in which there is a small percentage of registered cases of intoxication, we can conclude that often the real reasons are hidden or even that the professionals do not notify the National Sanitary Surveillance Agency (ANVISA), as they should.

When asked about which plants gave rise to intoxication, 7.14% reported not remembering and 7.14% reported it was broom (*Baccharis trimera* (Less)), which affected a 12-year-old child who used the plant in the form of tea. It was not reported the place where customer who suffered intoxication acquired the plant neither whether the plant was used *in natura* or suffered a process that makes it a herbal medicine.

Thus, in evaluating the qualities of the compounds of this species (*Baccharis trimera* (Less)), which are marketed in the state of Pará, the analysis showed that the results ranged from 6.14% to 35.84% of impurities, indicating that all 20 samples had plant material from other species or from other sources that were not part of the plant species under study. In addition, large amounts of insects, hairs and mineral residues were found, possibly due to cross-contamination during drying of the drug or due to inadequate processes of separation and cleaning of the vegetable raw material (Beltrame & Ferroni & Alves et al., 2009).

These cases demonstrate that there are numerous risk factors for intoxication, and that there may occur a popular commercialization of medicinal plants with erroneous identification of the plant, possibility of adulteration in the extracts, capsules containing the powder of the plant species, powder of the plant marketed in sachets and in bottles, interactions between medicinal plants and allopathic medicines (which can be used by the plant user), effects of overdoses, allergic or toxic reactions (Veiga Junior & Pinto & Maciel, 2005).

Of the professionals interviewed, 50% used herbal/medicinal plants as a form of complementary therapy to the treatment of diseases and the other 50% denied making use of this practice. When asked whether they would indicate the medicinal/phytotherapeutic plants for their patients, 50% answered yes, as shown in Table 1.

Table 1. Phytotherapeutics plants and its pharmacological action

Plant/ phytotherapic herb	Pharmacological action*
Lemon balm *(Melissa officinalis)*	Calming (21.42%)
Lemongrass *(Cymbopogon citratus)*	Calming (7.14%)
Indian coleus *(Plectranthus barbatus)*	Stomach (7.14%)
Chamomile *(Matricaria recutita)*	Calming. Cramps (21.42%)
Cinnamon *(Cinnamomum zeylanicum)*	Calming. Cramps (21.42%)
Ginger *(Zingiber officinalis)*	Throat (7.14%)
Guaco *(Mikania glomerata Spreng)*	Expectorant (7.14%)

* Each professional can indicate more than one plant

Among the plants cited as well as their respective pharmacological actions, according to the Brazilian Pharmacopoeia, only cinnamon (*Cinnamomum verum* J. Presl) was erroneously indicated as a calming medicine; however, it has the following indications: appetite stimulant, antidyspeptic, antiflatulent and antispasmodic. Its use is extremely contraindicated in pregnant women, infants and in people with hypersensitivity to

cinnamon and turkey balsam, as allergic reactions in skin and mucous membranes may occur (Brazil, 2010). This data corroborates the lack of knowledge of professionals about phytotherapy.

However, when asked about the possibilities of implementing the prescription of this therapy in the FHU of the municipality, 78.57% were favorable. The proposal of Brasileiro & Pizziololl & Matos et al. (2008), which aims at the inclusion of medicinal plants in the Family Health Unit would not only bring benefits to the health of the population, but it would also bring about economic improvements due to the non-necessity of allopathic medicines, which require a higher purchasing power to acquire, both by SUS and by its clients. Moreover, these can cause several side effects, as evidenced by the discourses transcribed below:

> It would be great, since the populations in general, besides being needy, have great confidence in the healing power of plants (...).[1]

> I think it depends on each individual professional, I think it is very good in long-term treatment, but the prescription is rarely made, because very few are in the list of medicines available in primary care (...)[2]

Franca & Souza & Baptista (2008) state that not all professionals are fully aware of the taxonomy of botanical material, side effects, intoxications, therapeutic indications, preparation and optimal dosage of this product, which is a type of knowledge that cannot be disregarded by nurses who are favorable to phytotherapy. Failure to administer phytotherapeutic substances and medicinal plants, similarly to errors in the preparation and administration of allopathic medicinal products, requires scientific basis, as can be seen below:

> I believe it is relevant to use and prescribe it; however, there is a lack of training and qualification of professionals in this area: knowing the plants, how to use them, dosage, adverse reactions and their respective indications, that is, a reliable theoretical basis and not just empirical (...)[3]

> Very interesting for the low cost and especially for the easy access that the users would have (...)[4]

Only with the acquisition of this knowledge, regarding phytotherapy and medicinal plants, professionals would prescribe them, making this practice a reality in the FHUs of the municipalities, as recommended by law (Veiga Junior & Pinto & Maciel, 2008).

On the other hand, the interviewees of this study who opposed to the implementation of this therapy (21.42%) justified their opinion as follows:

> It would only aid in the complementary treatment, but it would not replace the allopathic treatment (...)[5]

This statement was also proposed in a study carried out by Bruning (2009) in the municipalities of Cascavel-PR and Foz do Iguaçu-PR, in which 100% of the professionals interviewed were favorable to the implementation of herbal medicine and medicinal plants within the FHU, but only as adjuvant to treatment with allopathic medication.

It should be emphasized that there is much to be done so that phytotherapy can become a reality in the FHUs, because the scientific literature is still precarious in the sense of knowing how medicinal plants have been used, what their benefits are and how can professionals be trained to guide the use of this therapy as an integrative medicine in SUS (Santos & Guimarães & Nobre et al., 2011). This affirmation is corroborated by the following speech:

> Maybe due to the lack of knowledge on the subject I do not feel confident, nor do we have the support for indicating them (...)[6]

However, if scientific knowledge ends up being used to the detriment of popular knowledge, health practices that are not called "scientific" become excluded. Alternative health care may no longer be valued and there may arise dependence of physicians and industrialized medicines, characterizing what we call the medicalization of society, thus emphasizing the biomedical model (Siqueira, 2000). This is represented in the following speech:

> I am against the use of medicinal plants! That is, totally in favor of allopathic drugs (...)[7]

Final considerations

As mentioned by nurses, the great interest in implementing the use of herbal/phytotherapeutic plants in the primary health care network requires the collaboration of an interdisciplinary team (biology/botany, agronomy, nursing, medicine,

[1] Statement extracted from an interview questionnaire answered by FHU nurse (#1) of the municipality of Sinop/MT, June 2012.
[2] Statement extracted from an interview questionnaire answered by FHU nurse (#2) of the municipality of Sinop/MT, June 2012.
[3] Statement extracted from an interview questionnaire answered by FHU nurse (#3) of the municipality of Sinop/MT, June 2012.
[4] Statement extracted from an interview questionnaire answered by FHU nurse (#4) of the municipality of Sinop/MT, June 2012.
[5] Statement extracted from an interview questionnaire answered by FHU nurse (#5) of the municipality of Sinop/MT, June 2012.
[6] Statement extracted from an interview questionnaire answered by FHU nurse (#6) of the municipality of Sinop/MT, June 2012.
[7] Statement extracted from an interview questionnaire answered by FHU nurse (#7) of the municipality of Sinop/MT, June 2012.

sociology and anthropology) involving municipal managers, as well as other institutions and partnerships (Universities and Research Institutes) and also community representatives.

As a complementary factor, it is interesting that there is an ethnobotanical survey in the communities, and from this survey, a detailed bibliographical/scientific survey of the species of interest should be carried out. Through these data, a garden could be implemented for the production of seedlings to be used in the community medicinal gardens, guaranteeing the certification, as well as the use of these plants for the production of herbal medicines.

However, so that these therapies are rescued, it is necessary to invest in a new training policy and in a permanent training process of human resources, especially in Nursing, that plays a fundamental and direct role with the population. Nurses could, then, have the opportunity to educate the community, clarifying as to the proper use of herbal and phytotherapeutic plants. In this sense, it is reiterated the need to train nurses on medicinal plants/phytotherapy so that they are able to work competently in the fields of prevention, promotion, maintenance and recovery in primary care, thus strengthening the comprehensiveness that is so advocated by SUS (Bastos & Lopes, 2010).

References

BASTOS, R.A.A., LOPES, A.M.C. A fitoterapia na rede básica de saúde: o olhar da enfermagem. Revista Brasileira de Ciências da Saúde 14(2):21-28, abr.-jun. 2010.

BADKE, M.R. Conhecimento popular sobre o uso de plantas medicinais e o cuidado de enfermagem. 2008. 92 p. Dissertação (Mestrado em Cuidado, Educação e Trabalho em Enfermagem e Saúde). Universidade Federal de Santa Maria, Rio Grande do Sul, 2008.

BELTRAME, F.L., FERRONI, D.C, ALVES, B.R.V. et. al. Avaliação da qualidade das amostras comerciais de *Baccharis trimera* L. (Carqueja) vendidas no Estado do Paraná. Acta Scientiarum. Health Sciences, 31(1),37-43, 2009.

BRASIL. Ministério da Saúde. Sistema Nacional de Informações Toxicológicas (SINITOX). 2009a. Disponível em: http://www.fiocruz.br/sinitox_novo/media/tab01_centro_2009.pdf acessado em: 21/08/2012

BRASIL. INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA. Estimativa populacional de 2009. 2009b. Disponível em: http://www.ibge.gov.br/home/estatistica/populacao/censo2010/calendario.shtm acessado em: 22/09/2011

BRASIL. Ministério da Saúde. Programa Nacional de Plantas Medicinal e Fitoterápico. Brasília, DF. 77 p. 2007. Disponível em: http://portal.mda.gov.br/portal/saf/arquivos/view/Programa_Nacional_de_Plantas_Medicinais_e_Fitoter%C3%A1picos..pdf acessado em: 20/08/2012

BRASIL. Ministério da Saúde. A Fitoterapia no SUS e o Programa de Pesquisa de Plantas Medicinais da Central de Medicamentos. Brasília, DF. 2006a. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/fitoterapia_no_sus.pdf acessado em: 19/08/2012

BRASIL. Agência Nacional da Vigilância Sanitária. Formulário de Fitoterápicos Farmacopéia Brasileira 1ª Edição. 2010. Disponível em: http://www.anvisa.gov.br/farmacopeiabrasileira/conteudo/Formulario_de_Fitoterapicos_da_Farmacopeia_Brasileira.pdf acessado em: 18/08/2012

BRASIL. Conselho Nacional de Saúde/Ministério da Saúde. Resolução nº 196, de 10 de outubro de 1996a. Aprova as diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. Diário Oficial da União, Brasília, DF, Seção 1, p. 21082.

BRASIL. Ministério da Educação. Lei de diretrizes e bases da educação nacional (LDB) nº 9394/96. Diário Oficial da União. Brasília, DF. Sessão 1, p.27833-2784.

BRASIL. Conselho Federal de Enfermagem. Resolução COFEN nº 197/97. Estabelece e reconhece as terapias alternativas como especialidade e/ou qualificação do profissional de enfermagem. Brasília (DF), Conselho Federal de Enfermagem; 1997. Disponível em: http://www.abraten.com.br/arquivos/legislacaocofen.pdf acessado em: 22/08/2011

BRASILEIRO, B.G., PIZZIOLOLL, V.R., MATOS, D.S., et al. Plantas medicinais utilizadas pela população atendida no "Programa de Saúde da Família", Governador Valadares, MG, Brasil. Rev. Bras. Cienc. Farm. 44(4): 629-636, dez.2008.

BRUNING, M.C.R. A utilização da fitoterapia e de plantas medicinais em unidades básicas de saúde nos municípios de Cascavel e Foz do Iguaçu: Paraná: a visão dos profissionais de saúde. 2009. p.61. Dissertação (Mestrado em Saúde Coletiva). Instituto de Medicina Social - Universidade do Estado do Rio de Janeiro, Rio de Janeiro, 2009.

CEOLIN, T., HECKLL, R.M., BARBIERI, R.L., et al. Plantas medicinais: transmissão do conhecimento nas famílias de agricultores de base ecológica no Sul do RS. Rev. Esc. Enferm. USP, 45(1): 47-54, mar. 2011.

CERVO, A.L., SILVA, R., BERVIAN, P.A. Metodologia científica. 6. ed. São Paulo: Pearson Prentice Hall, 2007.

FRANCA, I.S.X., SOUZA, J.A., BAPTISTA, R.S., et al. Medicina popular: benefícios e malefícios das plantas medicinais. Rev. Bras. Enf. 61(2): 201-208, mar.-abr. 2008.

HECK, R.M., ROESE, A., PIRIZ, M.A., et al. Plantas medicinais e enfermagem: uma nova perspectiva no combate aos radicais livres. Cogitare Enfermagem (UFPR) 16(1): 122-26, jan-mar. 2011.

PADILHA, M.I.C.S., VAGHETTI, H.H., BRODERSEN, G. Gênero e enfermagem: uma análise reflexiva. Revista de Enfermagem UERJ 14(2): 292-300, abr.-jun. 2006.

NASCIMENTO, D.D.G.; OLIVEIRA, M.A.C. Competências profissionais e o processo de formação na residência multiprofissional em Saúde da Família. Saúde e Sociedade, 19(4), 814-827, out-dez. 2010.

SANTOS, R.L., GUIMARÃES, G.P., NOBRE, M.S.C., et al. Análise sobre a fitoterapia como prática integrativa no Sistema Único de Saúde. Revista Brasileira de Plantas Medicinais, 13(4): 486-491, 2011.

SOUZA, A.C.C., MUNIZ FILHA, M.J.M., SILVA, L.F., et al. Formação do enfermeiro para o cuidado: reflexões da prática profissional. Revista Brasileira de Enfermagem, Brasília, 59(6): 805-807, nov-dez. 2006.

SIQUEIRA, J.E. Tecnologia e medicina entre encontros e desencontros. Revista Bioética, Brasília, 8(1): 55-65, 2000.

TROVO, M.M, SILVA, M.J.P., LEÃO, E.R. Terapias alternativas/complementares no ensino público e privado: análise do conhecimento dos acadêmicos de enfermagem. Revista Latino-Americana de Enfermagem, 11(4), 483-489, jul-ago. 2003.

VEIGA JUNIOR, V.F. Estudo do consumo de plantas medicinais na Região Centro-Norte do Estado do Rio de Janeiro: aceitação pelos profissionais de saúde e modo de uso pela população. Revista Brasileira de Farmacognosia, 18(2), 308-313.

VEIGA JUNIOR, V.F., PINTO, A.C., MACIEL, M.A.M. Plantas medicinais: cura segura? Química Nova, 28(3), 519-528, mai-jun. 2005.