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Article

Herbal medicines from the industry in the unified health system: challenge faced by medical professionals

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The World Health Organization recognized the use of herbal medicines as a therapeutic resource and its application in the primary attention to heath. The begin of this expansion was in 2006, with the National Policy on Integrative and Complementary practices of the Unified Health System (SUS). This research aimed to evaluate the questionnaires applied to doctors, who may have prescribed industrialized herbal medicines and to identify the difficulties involved with the implementation of this therapy as an integrative and complementary practice. It is a quantitative, observational and transversal study conducted in the municipality of Pinhais/Brazil. The questionnaire applied had as themes the experience of personal use of industrialized herbal medicines, improvement after their use. Forty-four individuals from four different nationalities: Brazilian (88.64%), Cuban (6.82%), Mexican (2.27%) and Argentinian (2.27%), ages between 25 and 69 years, mainly male sex (54.55%) answered the questionnaire. According to the study, the doctors consider herbal medicines an alternative to the conventional treatment and these medical professionals have already prescribed some industrialized herbal medications. Despite the difficulties faced by medical doctors with the prescription of herbs, it is possible to define strategies to assist these professionals, such as the incentive the actions by the governments.

Keywords: Herbal medicines. Brazilian National Health System. Medical prescription. Phytotherapy

INTRODUCTION

The use of herbal medicines as a therapeutic resource and their application in the unified health system were recognized by the world health organization (WHO) in the '70s (OMS, 1978). The organization has observed a growing interest in this therapy as well as in the regulation of its use.

In the course of the '80s, several resolutions and ordinances were composed. In 1988, Resolution N° 8 was published with the purpose of stimulating and disseminating the use and distribution of herbal medicines in the Brazilian Unified Health System (SUS) (Brazil, 1988a).

The expansion began in 2006, with the enaction of the National Policy on Integrative and Complementary practices of the SUS, approved by Directive 971 on May 03, 2006, which includes phytotherapy among the methods that need to be implemented and developed in the public health network (Brazil, 2006a). In complementary to this, Decree 5,813/2006, ensures the safe access and the rational use of these sources (Brazil, 2006b), approved by the National Policy of Medicinal Plants and Herbal Medicines.

In the same year, the Brazilian Health Surveillance Agency (ANVISA) defined herbal medicines as industrialized products, technically elaborated, originating exclusively from vegetal raw material. The efficacy is based on clinical evidence, risks related to its use, the ability to reproduce, and maintenance of its quality. The manipulation of raw materials may also be found in

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pharmacies (Niero *et al*., 2003; Brazil, 2006a; Brazil, 2014a). Products that contain isolated active substances of any origin (synthetic or natural), or associated with plant extracts, cannot be regarded as herbal medicines (Brazil, 2006a).

Additionally, the traditional herbal medicines comprise those obtained exclusively from vegetal raw materials, where the safety and efficacy are proved by their frequent use and the publication of the technical-scientific literature, including national and international, without the need for clinical evidence or medical supervision for its use (Brazil, 2014a).

The prescription of industrialized herbal medicines by physicians demonstrates interest by these professionals in applying this therapy. This has been observed around Brazil, where several medical professionals involved also assert that they frequently prescribe some of these products (Silva, 2003).

The present study aimed to evaluate the questionnaires applied to doctors who may have prescribed industrialized herbal medicines in health units and to identify the challenges involved with implementing this therapy as an integrative and complementary practice in primary health attention at SUS.

MATERIAL AND METHODS

The Health Municipal Secretary of Pinhais previously authorized the study and was approved by the Ethics Committee of the University Federal of Paraná – Sector of Health Sciences, on December 11, 2015, upon the advice number 1,363,771 and CAAE 49439615,0,0000,0102.

It is a quantitative, observational, and transversal study conducted in the municipality of Pinhais – Paraná/ Brazil, following the Standards for Reporting Qualitative Research (SRQR), having 21 items (O'Brien *et al.*, 2014).

Pinhais is one of the 29 municipalities that make up part of the metropolitan region of Curitiba and has a population estimated at 129,445 habitats (IBGE, 2017). The city accounts for 10 Family Health units (Ana Neri, Esplanade, Maria Antonieta, Perdizes, Perneta, Tarumã, Tebas, Vargem Grande, Vila Amélia, and Weissópolis), where 45 doctors practice at different medical specialties.

Data was collected through semi-structured interviews with objective and discursive questions conducted with the doctors working in the Pinhais health unit from March to April 2016. After explaining the research, informed consent forms were signed. All the doctors answered the questionnaire according to their availability, and among the 45 doctors invited, only one did not participate in the research, resulting in 44 doctors in total who composed the sample.

The questionnaire used had several themes, such as, experiences after personal use of industrialized herbal medicines; improvement after the herbal medication usage; general characteristics of patients such as sex, age, medications that they commonly prescribe; difficulties faced by the prescription of herbal medicines during the routine — a pilot involving three doctors from the health units previously evaluated the study object. The answers were used to compose the final sampling because there was no possibility of changing the questionnaires after the pilot study ended.

The statistical analysis was performed with the help of Statistica 7.0. software. Values of the median, standard deviation, and p-value were obtained. P values of less than 0.05 were considered significant. All variables were analyzed using Fischer's exact test.

RESULTS AND DISCUSSION

In the last 100 years, the search for complementary and integrative practice has intensified worldwide; however, many countries, especially developing ones, still depend on the use of traditional therapy. Some countries rely almost entirely on the use of herbal medicines in primary health care, such as Africa and India, where 90% and 70%, respectively, of their treatments are carried out using plants or herbal medicines (Galor, Benzie, 2011).

The sample of medical professionals linked to the health units of the municipality of Pinhais was composed of 44 individuals from four different nationalities: Brazilian (88.64%), Cuban (6.82%), Mexican (2.27%), and Argentinian (2.27%), with ages between 25 and 69 years, where the majority were male (54.55%). The average age was between 30–39 years (36.36%), which demonstrates a recently superior formation.

In other countries, such as Germany, the population has access to herbal medicines through a medical prescription. The percentage of this therapy is so high that it has grown significantly, increasing from 52% in 1970 to 70% in 2010 (Joos, Glassen, Musselmann, 2012).

Regarding the work time, it is possible to observe that most of the doctors practicing in the municipality are between three and seven years (40.91%) and higher than eight years (31.82%), implying that a small percentage (27.27%) reported working in the municipality for two years.

A large number of these professionals (72.73%) did not attend phytotherapy classes during their graduation time. Only 25% confirmed having subjects in this area, while 2.27% were unaware of how to inform. This demonstrates the scarce provision of phytotherapy discipline as an integrative and complementary practice in the curriculum of medical courses in general.

The participation of doctors of other nationalities demonstrates the active participation and implementation of the More Doctors Program instituted by Law 12,871 on October 22, 2013. The More Doctors Program is a public policy of the national government that aims to supply the lack of medical professionals in the SUS, in the ambit of Basic Attention, mainly in more vulnerable regions of the country. It is characterized as a strategy to ensure the presence of a doctor per municipality and the expansion of medical coverage in Brazil (Brazil, 2013).

During the participation in the program, the doctors are required to furnish one of the following requirements: being a graduate in a high-ranked Brazilian institution of education, having a diploma revalidated in Brazil, or still being a graduate in a high-ranked foreign institution of education with habilitation to exercise the medicine in other countries (Brazil, 2017).

The insertion of the program has already produced an important impact on the public national health panorama. Data from the Health Ministry show that there was an expansion in the services of Basic Attention and Family Health, development of health access, improvements in the population's health indicators, and higher acceptance by the people (Brazil, 2017).

It is not rare to see that professionals comprehend phytotherapy and other Integrative and Complementary Practices as therapies as opposed to allopathic medicine (Queiroz, 2000). The scarcity of disciplines that approach the theme, and the absence of academic stimulus for the study and knowledge about these therapies, result in ignorance about the health policies that involve the subject, thereby reinforcing the preference for the biomedical model (Ischkanian, Pelicioni, 2012). This fact can compromise the prescription of herbal medicines.

With the purpose of institutionalizing the helpful inclusion of phytotherapy in the health system, the Health Ministry and the Public Policies previously cited to reinforce the importance of stimulating and promoting knowledge about herbal medicines in the curriculum of the professionals that are practicing in this area (Brazil, 1998b; Brazil, 2006a; Brazil, 2006b; Brazil, 2006c).

In the sequence, the results obtained in the interviews will be presented and discussed.

Medical experience in the personal use and indication of herbal medicines

When the doctors were asked if they had already undergone personal use of industrialized herbal medicines, 77.27% of the interviewed responded "yes." These 79.41% obtained an excellent result with the treatment realized, 8.82% did not get the desired effect, and 11.76% were unaware of how to inform.

The list of the most indicated industrialized herbal medicines was made by analyzing the questionnaires applied to each doctor. A total of 9.52% of these professionals do not prescribe herbal medicine to their patients, suggesting medical resistance and less specialization in the area. The herbal medicines more cited were; *Mikania glomerata* syrup (47.50%), followed by *Glycine max* L. (35%) and *Passiflora incarnata* L. (35.50%) (Table I).

TABLE I – Relation of the industrialized herbal medicines indicated by the medical professionals

Industrialized herbal medicines indicated by the doctors	**f**	**%**
Mikania glomerata Spreng	19	47.50
Glycine max L.	14	35.00
Passiflora incarnata L.	13	32.50
Ginkgo biloba L.	11	27.50
Salix alba L., *Crataegus oxyacantha* L., *Passiflora incarnata* L.	9	22.50
Hedera helix L.	7	17.50
Valeriana officinalis L.	7	17.50
Aesculus hippocastanum L.	5	12.50
Maytenus ilicifolia Martius	4	10.00
Tribulus terrestris L.	2	5.00
Pelargonium sidoides DC.	2	5.00
Arnica montana L. (salve)	2	5.00
Hypericum perforatum L.	1	2.50
Polygonum hidropiper, Aloína, Atropa belladona e Cephaelis ipecacuanha	1	2.50
Garcinia cambogia L.	1	2.50
Mentha crispa L.	1	2.50
Panax ginseng L.	1	2.50
Do not prescribe	4	9.52
Total	44	

f = frequency

Considering the results of international studies, challenging conclusions may be drawn. According to a survey among doctors in the United States, the majority (84%) anticipated they needed to learn more about complementary and alternative medicine to adequately address the patient problem (Winslow, Shapiro, 2002).

The municipality of Pinhais has three standard industrialized herbal medicines in its cast, and these are *Mikania glomerata* syrup, *Maytenus ilicifolia,* and *Glycine max* in capsules.

It is possible to note that none of the herbal medicines cited by the doctors are available by the SUS in the Brazilian National Relation of Essential Medicines (RENAME) and the Municipal Essential Medicines Relation (REMUME). Therefore, the herbal medicines cited; *Salix alba* L., *Passiflora incarnata* L., *Maytenus ilicifolia*, *Polygonum hydropiper,* and *Mentha crispa*, are part of the National Relation of Medicinal Plants of interest to SUS (RENISUS), composed by plant species which have demonstrated potential for development of new products, and are preselected by herbalists from different regions (Renisus, 2014).

The prescription of the industrialized herbal medicines by the doctors demonstrated interest in these professionals in using this therapy. This can be verified in other regions, where the medical professionals involved also affirmed that they have prescribed some of these products (Silva, 2003).

Access to herbal medicines may be found in Family Health units when they are available or sold in pharmacies without a prescription. In Germany, about 20% of herbal medication is sold with a prescription, which shows the participation of the prescribers (Joos, Glassen, Musselmann, 2012).

The herbal medicines prescription allows for diversifying the therapeutics options offered to the patients by the healthcare professionals. Besides, these products must undergo a quality control process to obtain a standardized product with efficacy and safety similar to that required for allopathic medicines (Klein *et al.*, 2009).

Phytotherapy use as a complementary therapy to the conventional treatment

Based on doctor's opinions about the inclusion of herbal medicines in the SUS, 43.18% considered this practice as an alternative to conventional therapy, 25% used them as a support, and 31.82% affirmed that herbal medicines could be used not only as an alternative but as a support.

When the need to substitute a prescription was questioned, 52.27% changed from herbal medicine to a synthetic drug due to the lack of the desired clinical improvement.

According to 55% of the doctors interviewed, medical specialization in the area is the primary challenge faced in the prescription of industrialized

herbal medicines. This is probably caused by the training that prioritizes current allopathic academic knowledge, distancing itself from the Integrative and Complementary Practices available in the SUS.

The study developed by Ozcakir *et al*., (2007) demonstrated that most of the doctors (96.5%) surveyed by a questionnaire did not receive any education about complementary and alternative medicine during the study. However, 74.4% wished to learn more; some doctors reported that knowledge levels were low (60.8%), and despite this, about half of the doctors (51%) believed in the potential of complementary and alternative medicine.

Other studies corroborate this thought; most of the doctors who have recommended complementary and alternative medicine believe that these subjects should be incorporated into the undergraduate medical curriculum (Jump *et al*., 1998; Ghassemi, 2005; Owen, Lewith, Stephens, 2001).

It is crucial to note that this course is conducted in medical colleges to inform and increase awareness about the subject.

Most professionals (93.18%) considered the dispensation of herbal medicines as a complement to the treatment of patients in basic care. However, they reported the occurrence of problems that impede progress in the use of these drugs (Table II). These results corroborate with the study by Feitosa *et al.* 2016, which demonstrated that students of health courses, such as medical students, show interest in the inclusion of topics relevant to herbal medicine, suggesting clearly that the professionals mostly receptive to this topic (70%) are undergraduates, which could lead to greater safety and a subsequent indication of these drugs.

Another question is related to the few studies conducted in the area (22.5%) that prove the efficacy of these drugs, indicating the lack of scientific support in this area in the opinion of these professionals. In this context, medical practice has as a guiding principle evidence-based medicine, where the medical team questions a few clinical studies that prove safety, efficacy, and drug interactions, among other information regarding these drugs. The students reported that doctors have limited knowledge about the subject. However, a greater intention to use occurs when learning about the subject is well established and scientifically proven (Rosa, Câmara, Béria, 2011).

TABLE II – Difficulties pointed by the medical staff for the avance of the herbal medicines use in the SUS

Difficult categories	**f**	**%**
Medical formation	22	55.00
The little number of studies in the area	9	22.50
Municipal acquisition	8	20.00
Patient's Ignorance and disbelief	5	12.50
Therapeutic resistance	5	12.50
Management	4	10.00
Pharmaceutical industry influence	2	5.00
Total	**40**	

f = frequency

Similarly, Silva (2003) also related to the absence of industrialized herbal medicines for dispensation in health units. In the municipality of Maracanaú (Ceará – Brazil), the doctors who attended the primary attention emphasized the absence of these medicines for dispensation, thus making it difficult to prescribe and advances in herbal medication usage at the SUS.

In this study, the interviewed doctors suggested that the industrialized herbal medicines quantity available for dispensation in the health units is reduced, and it does not attend to the prescriptions demands. The main difficulties cited by the professionals interviewed are similar to the study, which cites academic training in phytotherapy and the awareness of managers as the main problem in inserting phytotherapy in primary care (Fontenele *et al*., 2013). Corroborating these studies, Araújo and Collegues (2014) emphasized the importance of the commitment of the manager, the support of the Secretary of Health, the professional qualification, and the acceptance by the prescribers.

Different from that cited in other studies, in which the medical staff recognizes that there is an excellent acceptance by the patients in the phytotherapy use (Rosa, Câmara, Béria, 2011), the interviewed professionals related the unbelief of the patient as a challenge that

needs to be faced in the therapy acceptance. This may be associated with the small percentage (3.42%) of patients interviewed in the present study, who, when asked if they would accept phytotherapy as an alternative treatment, responded negatively, indicating the following as the main reasons: "Delay to function" or "Does not work."

The search for actualization by the healthcare professional about phytotherapy

Regarding the search for information and permanent education about herbal medicines, 50% of the professionals affirmed that they did not realize the search for information about herbal drugs and phytotherapy, 47.43% affirmed searching for information about these themes, and 2.27% did not answer.

Regarding the acquisition of this knowledge to solve doubts related to the theme, it was observed that the use of several sources of consultation, such as scientific articles (59.09%), other healthcare professionals (31.82%), communication media (29.55%), available knowledge (9.09%) would help improve the knowledge. It was suggested that only 2.27% related do not have uncertainties about the theme since, in some cases, the professional assigned more than one alternative.

When investigated about the realization of additional courses about herbal medicines, only 22.73% related to having realized some class in the theme. Where 80% were improvement courses and 20% were specialization courses.

Sometimes healthcare professionals do not have a specialization in prescribing herbal medicine or recommending herbal medicines to their patients. In countries such as Germany, many doctors are approved for prescribing herbal medicine, most without additional qualification for "naturopathy" (Joos, Musselmann, Szecsenyi, 2011).

When questioned about the availability of actualization courses about herbal medicines offered by the municipality, a large number (95.45%) suggested that it did not provide any direction by part of the city but would be interested in the theme if there were opportunities (97.62%).

It can observe that there is immense interest in the doctors in participating in lectures that discuss themes actualized about herbal medicines and complementary and alternative medicine (Ozcakir *et al.*, 2007). The search and acquisition of knowledge about the phytotherapy theme could awaken medical professionals intending to prescribe herbal medicines for their patients, according to that observed in the study reported by Rosa, Câmara, and Béri (2011).

It would be necessary to offer lectures and courses by the municipality, where the phytotherapy theme, as well as medicine plants, could be discussed based on scientific studies. This would allow higher confidence by part of the doctors to prescribe and include herbal medicines as an alternative to the treatment of the patients.

The low offer of courses is also observed in other locals, where the health professionals report limited offers of training to the health unit workers about medicinal plants and herbal medicines (Bruning, Mosegui, Vianna, 2012). Additionally, Rosa, Câmara, and Béri (2011) emphasized that investments in professional capacitation contributed to the institutionalization of phytotherapy in primary attention, making it a more regular practice.

The Health Ministry incentivizes the actualization of the managers by offering courses that encompass the Integrative and Complementary Practices (PICS) and considers the necessity of the actualization of the doctors and other professionals involved without public restriction.

From 2014 to 2016, more than 17.500 health professionals began the formation process in courses offered on PICS. More than 6.500 concluded the session, while 11.000 of them were still continuing. The formation of more 9.000 workers of the Basic Attention in the courses available by the Health Ministry was predicted in 2017 (DAB, 2016). Some examples of online courses offered by the Department of Basic Attention of the Health were: body and mental methods of traditional Chinese medicine; introductory course in complementary and integrative practices; traditional Chinese medicine; use of medicinal plants and herbal medicines for community health agents; as well as qualification course in medicinal plants or herbal medicines in the Basic Attention.

In some countries, an attempt has been made to overcome this problem with educational activities. In Australia, fact sheets about herbals were created,

which resulted in increased knowledge and improved communication with their patients about those herbals (Janamian *et al.*, 2011).All the courses were conducted according to the guidelines of the National Policy on Integrative and Complementary Practices (PNPIC) as the basis and aim for the exchange of experience and interaction between the professionals involved. Professional improvement and ministerial and municipal incentives are essential; if the same policies that regulate the inclusion of herbal medicines in the SUS are not observed yet, it is implemented as a regular practice in the health services (Figueredo, Gurgel, Gurgel Junior, 2014).

The knowledge of the professionals about guidelines that regulate the inclusion of phytotherapy at SUS

Only 22.72% of the interviewed professionals were reported to understand public policies that regulate the use of medicinal plants and herbal medicines as an integrative practice by the SUS. Besides, when questioned, 54.55% of the interviewed professionals affirmed knowing about the herbal medicines available by the municipality studied.

A study reported with doctors and nurses on the family health strategy could observe a similar result. Based on the interviews, only 10.8% showed knowledge of the PNPIC, and 81.4% agreed with its inclusion at the SUS, favoring what was proposed (Thiago, Tesser, 2011). Corroborating with the results, the presence of limited knowledge of the health professionals was observed regarding the PNPIC and related to the lack of understanding of the interviewed professionals in a study (Dutra, 2009). In addition, Kemper *et al.*, (2006) also reported that the level of knowledge and confidence of medical doctors about herbal medicine was moderate, and their communication skills were reduced.

The construction of public policies suggested that the possibility of the inclusion of herbal medicines in the SUS dated before the creation of the same, in 1988, when the Interministerial Commission of Planning and Coordination (CIPLAN), with the help of Resolution 08, included the phytotherapy in the health services (Brazil, 1988a). With the same idea, the National Conferences of Health 8th (1986), 10th (1996) and 12th (2004) recommended the inclusion of phytotherapy and other Integrative and Complementary Practices in the SUS (CNS, 1986; CNS, 1996; Brazil, 2001; CNS, 2004).

To support the use of this alternative treatment, other relevant resolutions serve as an instrument for the consolidation of the phytotherapy in the SUS, being these that create the PNPIC in the SUS, the National Politic of Medicinal Plants and herbal medicines (PNPMF) (Brazil, 2006a; Brazil, 2006b).

While public health entities may be concerned with the implementation of herbal medicines already in use, entrepreneurs and industrialists hope herbal medicines may yield returns from sales or yield clues for discovering promising chemical compounds isolated for pharmaceutical development.

The Representative of Global Herbal Medicine Market report provides a detailed history and analysis of the global market for Herbal Medicine, which was valued at $131400 million in 2018. The demand for herbal medicine was anticipated to reach $ 111 billion by the end of 2023 (Global Herbal Medicine Market Information, 2019).

These data reflects genuine public, industry, and governmental interest in this area.

Medical education in different countries

When reporting the accomplishment in subjects with phytotherapy contents during the graduation period with the nationality of the professionals involved, it was observed that a more significant number were Brazilian physicians who did not perform during their graduation period in a discipline whose content was related to the field of phytotherapy compared to the foreign doctors (Table III).

The same can be observed when analyzing the relationships between the realization of additional courses in the area of phytotherapy after graduation *versus* the nationality of the professionals, where the foreign doctors that had undertaken other courses on phytotherapy appear ranked higher than the Brazilian professionals.

TABLE III – Nationality of the interviewed doctors and the realization of disciplines and courses about phytotherapy

	Disciplines about phytotherapy					Additionals course about phytotherapy				
	Yes		No			Yes		No		
Nationality	**f**	**%**	**f**	**%**	**Total**	**f**	**%**	**f**	**%**	**Total**
Brazilian	6	54.55	32	100.0	38	6	60.0	33	97.06	39
Argentine	1	9.09	0	0	1	0	0.00	1	2.94	1
Cuban	3	27.27	0	0	3	3	30.0	0	0.00	3
Mexican	1	9.09	0	0	1	1	10.0	0	0.00	1
Total	11		32		43	10		34		44
P-value	0.0001					0.0068				

f = frequency

The Health Ministry, through public policies, regulates the use of herbal medicines in the SUS and encourages the helpful inclusion of phytotherapy in the curriculum of active professionals through implementing disciplines, research, technologies, and innovation (Brazil, 1998b; Brazil, 2006a; Brazil, 2006b; Brazil, 2006c). However, each education institution has discretionary power to choose the addressed disciplines during the courses of all the health areas, which also takes place with the organization of the class of graduation of Medicine, defined by the respective course collegiate that is based on the National Curriculum Guidelines of Graduation in Medicine (Brazil, 2014b).

Considering an example, the disciplines that are part of the curriculum of the Medicine course of the Federal University of the Paraná (Brazil) were analyzed. Initially, no compulsory subjects involving the integrative practices that are part of the PNPIC were identified. Only the disciplines of Acupuncture, Medical Rationalities and Integrative Practices (40 hours), and Fundamentals of Homeopathy and Phytotherapy (40 hours), all optional, were identified (UFPR, 2015).

When analyzing the disciplines that are part of the Medicine course in other countries such as Cuba (University of Medical Sciences of Habana), Mexico (National Autonomous University of Mexico), and Argentina (University of Buenos Aires), specific disciplines about herbal medicines were not found. A possibility could be that in these institutions, the theme is addressed according to other regulations more comprehensively than those that involve traditional therapeutic practices (Habana, 2016; UBA, 2015; UNAM, 2011).

A limitation of this study was that few reviews in this area had been found in the literature with medical indications x herbal medicines. This finding reinforces the importance of conducting more research on Integrative and Complementary Practices by medical professionals.

FINAL CONSIDERATIONS

According to the present study, the doctors consider phytotherapy as an alternative to conventional treatment and indicate industrialized herbal medicines for the patients treated, even when facing severe difficulties.

The most cited challenges are related to the knowledge of health professionals about the subject, limited information about the efficacy and safety of treatment performed using these products, and the few options available in the health units, in contrast to the current model that favors the use of synthetic drugs or those isolated from plants.

In this context, it is possible to find strategies that help in the qualification of the professionals involved, to establish and institutionalize phytotherapy as a therapeutic alternative in the health care model of SUS.

Furthermore, although several actions and programs encourage the implementation of herbal medicines in the SUS, this growth has not yet been sufficient to use them as a regular practice in health services.]

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