Use of Integrative and Complementary Practices by the elderly: National Health Survey 2013

Uso de Práticas Integrativas e Complementares por idosos: Pesquisa Nacional de Saúde 2013

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ABSTRACT The study aimed to estimate the prevalence of carrying out Integrative and Complementary Practices (PIC) and their relationship with chronic diseases in elderly Brazilians. Cross-sectional population-based study conducted with data from the National Health Survey (PNS/2013; n=23,815). The prevalence of carrying out PIC and the relative frequencies of the referred practices were estimated. Comparisons were made between proportions using the Rao-Scott test with a 5% significance level and prevalence ratios were estimated for the use of PIC, according to chronic diseases. The use of PIC was mentioned by 5.4% (IC95%: 4.9-6.0) of the elderly. Among these, 62.6% reported the use of medicinal plants/phytotherapy; 22.2%, acupuncture; and 11.2%, homeopathy. Only 6.7% underwent treatment at Unified Health System (SUS). There was a greater performance of practices by women and for all treatments considered (p <0.001); in those with high cholesterol, arthritis or rheumatism, spinal problems and depression (p <0.05). The results measure the use of integrative and complementary practices with national data, pointing to their use in the treatment of the various health conditions that mainly affect the elderly.


RESUMO O estudo teve por objetivo estimar a prevalência da realização de Práticas Integrativas e Complementares (PIC) e sua relação com doenças crônicas em idosos brasileiros. Estudo transversal de base populacional realizado com dados da Pesquisa Nacional de Saúde (PNS/2013; n=23.815). Estimaram-se a prevalência de realização de PIC e as frequências relativas das práticas referidas. Realizaram-se comparações entre proporções pelo teste de Rao-Scott com nível de significância de 5% e estimaram-se razões de prevalência para o uso das práticas integrativas e complementares, segundo doenças crônicas. O uso da PIC foi referido por 5,4% (IC95%:4,9-6,0) dos idosos. Entre estes, 62,6% relataram o uso de plantas medicinais/fitoterapia; 22,2%, acupuntura; e 11,2%, homeopatia. Somente 6,7% realizaram o tratamento no SUS. Observou-se maior realização das práticas pelas mulheres e para todos os tratamentos considerados (p<0,001); naqueles com colesterol alto, artrite ou reumatismo, problema de coluna e depressão (p<0,05). Os resultados dimensionam o uso das PIC com dados de abrangência nacional, apontando para sua utilização no tratamento das diversas condições de saúde que acometem principalmente os idosos.


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Introduction

Aging is a natural and physiological life process that has reported accelerated and ongoing increase in Brazil. Considering the high prevalence of Chronic Non-communicable Diseases (CNCDs), its associated comorbidities and other health conditions with high incidence on the elderly population, the use of medicine plays a central role in both the treatment and the recovery, representing one of the key elements in the elderly people's health care. Considering that reality, it is necessary to adopt health promotion actions and prevention of deterioration, especially regarding basic care assistance.

In Brazil, the expression Integrative and Complementary Practices (PIC) is used to designate Traditional Medicine (TM), Complementary and Alternative (CAM) and Integrative Medicine (IM), which, in recent decades, have been fostered by the World Health Organization (WHO) so as to be introduced as part as the Primary Health Care (PHC). Although the use of PIC is still discrete, an increase has been noticed, with variations in practices and sociodemographic aspects.

Even though the institutionalization of PIC has presented a slow pace, regarding the PHC, there is an increasing revitalization of non-biomedical practices together with a growth in demand, social legitimacy and institutional regulation. In 2006, the National Policy of Integrative and Complementary Practices (PNPIC) was institutionalized in the Unified Health System (SUS). Homeopathy services, medicinal plants therapy, acupuncture, anthroposophy and thermal therapies were primarily incorporated. In 2017, PNPIC was expanded and in 2018, 14 additional practices were included.

The offer of such therapeutical resources had the PHC as a major target, providing broader range of health care approaches and therapeutical possibilities to the users. Therapeutical efficiency with economic feasibility to the public health system are among PIC’s the main benefits. PIC is available in over three thousand cities and 88% of the offer occurs in PHC in SUS structure.

In the literature, data on the prevalence of the use of those practices in in the Brazilian elderly population are scarce. The study is aimed at estimating the prevalence of carrying out PIC and its relation to chronic diseases in elderly Brazilians.

Material and methods

Quantitative descriptive study including data of elderly population who participated in the 2013 National Survey of Health (PNS) held by the Ministry of Health in partnership with the Brazilian Institute of Geography and Statistics (IBGE), which gathered information on various health-related aspects of Brazilian population.

PNS applied samplings by clusters in three stages of selection, using the census sectors, or clusters of sectors, selected by simple random sampling as primary unit of samplings. Permanent private households constituted the secondary units; and, in every household, an adult resident (age 18 and over) was selected by simple random sampling so as to compose the cluster of units in the third stage. Details of the sampling and weighting procedures are available in previous publications.

The data collector tool used at the PNS was divided into three parts: household and resident survey forms (responded by a resident who was able to inform on the socioeconomical and health situation of everyone – proxy informant) and individual survey form (responded only by the resident who was 18 years old and over, selected with equiprobability among all residents). Adults who were 60 years old and over were included in the study and answered to the specific section of elderly health. It is important to highlight that in case of the resident absence or inability to respond, the
For the purpose of this study, all participants with 60 years old and over (n=23,815) were considered as part of the data analysis regarding PIC of the section of use of health services, including the respondents themselves and the referred information by the proxy resident. The questions were: (J53) ‘In the past 12 months, _____ have you used any integrative and complementary practice, such as acupuncture, homeopathy, medicinal plants, phytotherapy etc.? (yes or no). For those who responded affirmatively (n=1,420): (J54) – ‘Which treatment _____ has been used? (acupuncture, medicinal plants, phytotherapy, other; and (J57) – ‘This treatment was held by the Unified Health System (SUS)?’ (yes or no).

Furthermore, some Chronic Non-communicable Diseases (CNCDs) referred related to the resident selected were considered in the same age range (n=11,177), such as: high blood pressure; diabetes, high cholesterol; heart condition; Cerebrovascular Accident (CVA) or stroke; asthma (or bronchitis asthmatic); arthritis or rheumatism; cancer; chronic kidney failure; chronic spinal problem such as chronic back or neck pain, back pain, sciatica, vertebral and disk problems, depression or lung conditions (lung emphysema, chronic bronchitis Chronic Obstructive Pulmonary Disease – COPD). For the majority of Chronic Non-communicable Diseases (CNCDs), data is related to the report of the previous medical diagnostic, except for chronic spinal pain (self-declared) and depression when previous diagnostic from doctor or health professional (psychiatrist or psychological therapist) was considered. All chronic conditions were classified ‘yes or no’. The responses were provided by the resident who was 60 years old and over answering the individual form.

Microdata from the PNS are available at the website https://ww2.ibge.gov.br/home/estatistica/populacao/pns/2013_vol4. The prevalence of carrying out PIC and the respective 95% reliance intervals (IC95%) were estimated; and to the rest of the variables related to PIC, the percentage distribution along relative specific frequencies and by range (weighted) were observed. Comparisons were made between the frequency of PIC use according to gender using Pearson’s Chi-Square test (Rao-Scott), considering 5% significance level; prevalence ratios were estimated for the use of PIC, according to CNCD and the adjusted prevalence criteria by gender and age following the Possion’s regression.

Considering the complex design of the study sampling, all analyses were carried out by the survey at Stata 14.0 (StataCorp LP, College Station, United States). The 2013 PNS was approved by the National Committee for Ethic Research of the Ministry of Health (legal decision n# 328.159, 26 of June 2013).

Results

The average age of the elderly was 69.9 years (IC<sub>95</sub>%:69.7-70.1); and 56.4% were women. The use of PIC was referred by 5.4% (IC<sub>95</sub>%:4.9-6.0) of the elderly, and the percentual distribution of the PIC types of PIC is shown in graph 1. The majority reported the use of medicinal plants and phytotherapy (62.6%; IC<sub>95</sub>%:59.7-65.5), followed by acupuncture (22.2%; IC<sub>95</sub>%:20.2-24.4) and homeopathy (11.2%; IC<sub>95</sub>%:8.9-13.9).
Only 6.7% (IC95%:5.1-8.8) of the elderly referred making use of treatments provided by SUS at the time of the study. Significant statistical differences were observed on the prevalence of those practices between gender (4.3% and 6.3% men and women respectively), as well as to all types of treatments considered (p<0.001) (graph 2). 

Graph 1. Percentual distribution of Integrative and Complementary Practices (PIC) carried out by the elderly in the past 12 months (n=23,815). National Health Survey, 2013

Source: Own elaboration.

Graph 2. Treatments carried out by the elderly in the past 12 months, according to gender (n=23,815). National Health Survey, 2013

Source: Own elaboration.
As to the use of alternative and complementary practices, according to the existence of chronic diseases and after gender and age adjustments, larger proportions of using PIC were verified among the elderly with high cholesterol (RP=1.42; IC$_{95\%}$:1.10-1.83), arthritis or rheumatism (RP=1.75; IC$_{95\%}$: 1.35-2.27); chronic spinal problem (RP=1.89; IC$_{95\%}$: 1.50-2.38) and depression (RP=1.62; IC$_{95\%}$: 1.18-2.21) (table 1).

Table 1. Prevalence and prevalence criteria for the use of alternative and complementary practices. according to existence of chronic diseases in elderly Brazilians (n=11,177). National Health Survey, 2013

<table>
<thead>
<tr>
<th>Chronic Disease</th>
<th>n</th>
<th>%</th>
<th>IC95%</th>
<th>Value p</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Blood Pressure</td>
<td>5,524</td>
<td>5.1</td>
<td>4.3 - 5.9</td>
<td>0.352</td>
</tr>
<tr>
<td>Diabetes</td>
<td>1,896</td>
<td>4.9</td>
<td>3.8 - 6.3</td>
<td>0.447</td>
</tr>
<tr>
<td>High Cholesterol</td>
<td>2,604</td>
<td>7.2</td>
<td>5.8 - 8.9</td>
<td>0.002</td>
</tr>
<tr>
<td>Heart Condition</td>
<td>1,122</td>
<td>5.5</td>
<td>3.7 - 8.0</td>
<td>0.941</td>
</tr>
<tr>
<td>(CVA*) or stroke</td>
<td>563</td>
<td>5.8</td>
<td>3.6 - 9.2</td>
<td>0.761</td>
</tr>
<tr>
<td>Asthma (or bronchitis asthmatic)</td>
<td>495</td>
<td>4.5</td>
<td>3.0 - 6.8</td>
<td>0.421</td>
</tr>
<tr>
<td>Arthritis or rheumatism</td>
<td>1,880</td>
<td>8.7</td>
<td>7.0 - 10.8</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Chronic spinal problem such as chronic back</td>
<td>2,897</td>
<td>8.2</td>
<td>6.8 - 10.0</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>or neck pain, lomabgy. sciatica. vertebral</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and disk problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>953</td>
<td>8.8</td>
<td>6.5 - 11.6</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Lung conditions (lung emphysema. chronic</td>
<td>352</td>
<td>4.5</td>
<td>2.3 - 8.8</td>
<td>0.607</td>
</tr>
<tr>
<td>bronchitis. COPD**) other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>542</td>
<td>7.2</td>
<td>4.8 - 10.7</td>
<td>0.146</td>
</tr>
<tr>
<td>Chronic kidney fail</td>
<td>283</td>
<td>8.8</td>
<td>5.1 - 14.7</td>
<td>0.066</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

*CVA: Cerebrovascular Accident; **COPD: Chronic Obstructive Pulmonary Disease.

Discussion

The results indicated low prevalence of PIC use by the elderly. To all regarded practices, there was larger proportion among women; and as to the service, a small percentage referred to the treatment offered by SUS at the time of the study. The larger use of PIC by women has been observed in other studies. The practices represent a necessary alternative of therapeutical approaches to the elderly care, and Brazil figures as one of the few countries in the world to offer PIC free of charge, through the SUS, at all levels of care.

In the present study, positive associations between the use of PIC and the presence of hypercholesterolemia, arthritis or rheumatism, spinal problems and depression were observed. A study conducted with 2012 data from the National Health Interview Survey and the Adult Alternative Medicine to determine the use of practices among people with...
multiple chronic conditions (n=15,463), which included elderly people, has demonstrated that participants with hypercholesterolemia presented large proportions of the use of practices as compared to the participants without those conditions (p<0.001)\textsuperscript{21}. At the present study, the use of practices was 42% higher in the elderly who referred high cholesterol level.

The use of PIC is high among individuals with rheumatic diseases\textsuperscript{22-24}, often concurrent to conventional medical treatment and with positive effect evaluations\textsuperscript{23}. In this study, higher use of practices was verified among the elderly with arthritis or rheumatism (RP=1.75). It must be stressed the importance of making health care professionals that oversee those patients aware of the concurrent use of both treatments, so as to maximize potential care.

Multiple studies reveal the benefits of PIC\textsuperscript{25-31}, including the use of medicinal plants and phytotherapy\textsuperscript{26,27}, homeopathy\textsuperscript{28,29}, acupuncture in prevalent morbidity in elderly\textsuperscript{30,31}, as well as the decrease in the use of medicines\textsuperscript{30}. In this study, greater prevalence of the use of those practices in the elderly that reported chronic spinal problem was verified – such as back pain, back pain, among others. Systematic revision involving 13 longitudinal studies on the use of acupuncture in the treatment of chronic pain demonstrated satisfactory results when compared to traditional treatments or no treatment for lumbar pain, osteoarthritis and headache. Furthermore, a decrease in the use of painkillers was found\textsuperscript{30}.

Among the elderly with depression, the use of practices was 62% higher, regardless gender and age. Bibliographic review indicated effectiveness in the use of Ginkgo biloba L. (Ginkgo) for brain failure and dementia treatment (Alzheimer), as well as Hypericum perforatum (Perforate St John’s-wort)) in the treatment of moderate and mild depression\textsuperscript{27}. Clinical trial conducted in Mexico to assess the individualized homeopathic treatment and fluoxetine for moderate to severe depression at the peri and post-menopause (ages 40 to 65) highlighted, showed, after six weeks of treatment, the effectiveness of homeopathy to treat depression, including women in the menopause with depressive moderate to severe conditions; homeopathy, but not fluoxetine, has improved the menopause symptoms assessed by Greene Climacteric Scale\textsuperscript{28}.

Among chronic conditions that offer greater risks to the elderly, high blood pressure prevails. In this study, the relation between high blood pressure and the use of PIC was not observed, unlike the verification of Mbizo et al.\textsuperscript{21} in the study with American elderly and adults. Clinical trial results on the use of acupuncture carried out in patients with hypertensive emergencies in the PHCs (n=108) revealed that 98% of patients who received the therapeutical intervention reported improvement in pressure levels\textsuperscript{31}. Observational prospective study on the homeopathy treatment of patients aged 70 and more (n=83) oversaw for two years and whose frequent diagnostics were high blood pressure and sleep disorders indicated striking and supported decrease of the severity of claims\textsuperscript{29}.

In Brazil, over recent years, a greater access to drugs as part of the integral health treatment of patients with chronic diseases has been verified\textsuperscript{32}. Drug treatment is necessary to the control of chronic diseases, the decrease of morbimortality and for improving the quality of life\textsuperscript{4,32}. Throughout its pharmaceutical assistance, besides ensuring assistance, SUS must also foster the rational use of drugs\textsuperscript{33,34}. PIC’s benefits and recommendations, especially for the elderly, constitute strategies which may also contribute to the decrease of drug-related problems in this age range\textsuperscript{35}.

In the present study, the use of the medicinal plants and phytotherapy were most the frequently mentioned by the elderly, as result of the accumulated empiric knowledge about its effect on health care by Brazilian
population. Nevertheless, it must be mentioned that even though there is a specific national policy regulating the use of medicinal plants and phytotherapy, in line with PNPIC, and that drugs are part of the current Rename (National List of Essential Medicines), and that there is credit is granted by the CBAF (Basic Component of Pharmaceutic Assistance), less than 3% of the cities were offering medicinal plants and phytotherapy to their population. In addition, health care professionals perceive they are not qualified to prescribe medicinal plants and phytotherapy and to provide guidance to safe and efficient use of medicinal plants, which is also true for the remaining PIC. However, PIC may be used to the interprofessional integration of primary care teams, health promotion and professionals and users approach strategy.

Considering the aging of Brazilian population, it is mandatory to boost the integrated use of PIC offered by SUS, which not only fosters the treatment, but also stimulate self-knowledge and personal autonomy, thus contributing to the decrease in health damages caused by the social impacts experienced by the elderly, and ultimately, reframing mental and physical well-being, so that their remaining years may be lived with quality and dignity.

Concerning the elderly health care, service provision disrupts the attention with more and more appointments with specialists, information that are not shared, excessive use of pharmaceutical drugs, clinical exams and scans and a whole range of procedures overloading the system, with striking financial impact at all levels; and they do not necessary generate significant benefits for the elderly health and quality of life. Nonetheless, it is important to consider that the demand for PIC for the treatment and health recovery may be a way of affirmation of an opposite health care identity compared to conventional practices. In addition, it may point to the valorization of practices that people traditionally do know already and which are not commonly valued. Communications constrains between doctors and patients regarding the use of PIC were observed in other countries as well. This study measured the use of PIC in Brazilian elderly, which necessarily relates to the offer and access to the service. Regional state and communal differences must be addressed as to PIC implement PIC in the country. A study including data from the second stage of external assessment of the National Program for Improving Access and Quality of the Basic Attention (PMAQ-AB/2013), with a sampling encompassing 1,470 teams, and which provided service to 295 cities of Santa Catarina (SC), has detected expressive implementation result, considering that the majority of population already had access to PIC. In that state, PIC was fully or partially accessible to 56,3% of the population, with differences among cities with diverse size range. The authors understand that, in order to enlarge and extend the implementation of PIC at the primary assistance, the federal administration must embrace PNPIC as a State policy, ensuring financial resources for its operation at SUS and allowing for the effort of teams which offer PIC to turn into more successful experiences, not limiting its potential to a focal and isolated policy.

Among the limitations of the study, issues related to the transversal nature of the research must be taken into account, making it impossible to determine a casualty relation for identified associations, such as the use of alternative and complementary practices, and some chronic diseases. All information was collected by self-reporting, some responded by a proxy (substitute). However, it must be highlighted the use of data gathered from the population-based research representative of the Brazilian adult population, which allowed for unprecedented estimates of the prevalence use of PIC among the elderly.

In order to overcome the challenges of the
integral assistance to the elderly health care, the resetting of work procedures in the health care system is mandatory. To Cecílio & Merhy:

A complex scheme of acts, procedures, flows, routines, knowledge, in a dialectic process of complementation, together with dispute, compose what we know as care in health⁴⁶.

One must have in mind that the integrality of care attention depends on the way different multiple practices of health professionals articulate in the health care of the elderly.

Final considerations

The results indicated low prevalence of the use of PIC among elderly, though higher among women. In the individuals with high cholesterol, arthritis or rheumatism, chronic spinal problems and depression, there was a larger proportion of PIC being carried out. Overall, regarding elderly health care, other methods of therapeutical therapy, besides drug treatment, are still secondary in the medical practice. PNS data revealed minor utilization of specific non-biomedical resources – available at SUS in 2013 – in the treatment of several health conditions that affect the elderly, not only the practices based on scientific assessments of efficiency and safety (integrative), but also the practices used alongside with (complementary) the conventional medicine.

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Collaborators

Marques PP (0000-0002-7954-4056)* contributed with the study design, literature review, analysis and interpretation of data and writing of the manuscript. Francisco PMSB (0000-0001-7361-9961)* contributed with the study design, literature review, analysis and interpretation of data and writing of the manuscript. Bacurau AGM (0000-0002-6671-2284)* collaborated with study design, analysis and interpretation of data and writing of the manuscript. Rodrigues PS (0000-0002-1313-2403)* contributed with critical review of the content. Barros NF (0000-0002-5404-1516)* contributed with literature review and critical review of the content. All authors approved the final draft of the manuscript.

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