



## CHARACTERISTICS OF THE EDUCATIONAL AND PROFESSIONAL PROFILE OF NURSES IN INTEGRATIVE HEALTH IN MIDWESTERN BRAZIL

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### ABSTRACT

**Objective:** to analyze the educational and professional profile of nurses in the area of Health Integrative and Complementary Practices (HICP) of the Midwestern Region of Brazil. **Method:** it is a descriptive study, with quantitative approach (survey type). The participants were 53 nurses from Mid-West/Brazil, answering an online questionnaire with 52 questions, from June/2021 to January/2022. For data analysis, descriptive statistics were used, inferential statistical analysis (chi-square test/exact Fisher test), with a significance level of 0.05. **Results:** among the study participants, 84.9% reported having HICP training. Of these, 75% use the HICP at work, mostly women (84.9%), government workers (43.4%), with training in acupuncture, auriculotherapy and Reiki. Nurses with HICP training showed a statistically significant association ( $p=0.012$ ) with pensioners, employees without a registered license and service providers. **Conclusion:** The nurses from the Midwest region who have a HICP training and who responded to this study are mostly women, government workers with specialization and/or residency, who use these practices in their work routine, with greater performance in PHC, through individual visits and actions in health groups.

**Keywords:** Complementary therapies. Nursing; Integrative medicine. Public Health. Traditional Medicine Practitioners..

### INTRODUCTION

Health Integrative and Complementary Practices (HICP), also known as Traditional, Complementary and Integrative Medicines (TCIM), are a set of practices, actions and knowledge from several therapeutic, curative and health traditions focused on the prevention of diseases and recovery of health always aiming at comprehensive care, that is, to offer biopsychosocial assistance, which takes into account beliefs, the way of seeing the world<sup>(1,2)</sup>.

Thus, in 2006, through the decree no 971, the National Policy of Integrative and Complementary Practices (NPICP) was promulgated, which allowed the entry of non-conventional health actions, complementary to the biomedical model, The mechanistic and

biologic that structures health care in Brazil<sup>(3)</sup>. Currently, there are 29 ICPs offered by the Brazilian Unified Health System (SUS), primarily through Primary Health Care (PHC), although they can permeate all levels of health. These practices include Traditional Chinese Medicine (TCM), such as Acupuncture and Auriculotherapy, Meditation, Reiki, Medicinal Plants and Phytotherapy, Naturopathy and Homeopathy, among others<sup>(1)</sup>.

The ICPs emphasizes self-care, human care and the health/disease process under a new perspective, less interventional and more linked to continuous therapeutic care. The incorporation of ICP in the work routine of the SUS can encompass society, the human being and the environment in an integrated way by considering the human being in its different

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dimensions: physical, emotional, psychic and social<sup>(4)</sup>.

In recent years, there has been a gradual increase and revaluation of these practices, despite the culture and the predominant health model in the country being biomedical and medicalizing. This event has impacted health professionals, with increasing indication and professional practice by different professional categories<sup>(5)</sup>. It is important to highlight the role of nursing in this expansion, because it was the first profession in Brazil that dared to recognize PIC as integrative and complementary medicine in the care offered to patients<sup>(6)</sup>.

Nursing has been distinguished in several areas, which justifies its effective interaction in the applicability of ICPs in different equipment and health sectors, because once implemented in their professional practice, will enable planning with various work tools the integral and holistic care to the human being. This plurality of care makes it possible to design the best therapeutic approach, individualized to meet the needs of each patient<sup>(4)</sup>.

These practices are being inserted in the Basic Health Units (BHU) of many Brazilian municipalities, and states such as São Paulo, Minas Gerais, Goiás, among others, have been highlighted in the implementation of these practices in the health network and in the insertion of disciplines, programs in universities, as well as the structuring of extension and research projects of universities, such as at the Federal University of Goiás (UFG)<sup>(7)</sup> and the Federal University of Catalão (UFCAT).

It is worth mentioning the importance of ICPs in the Midwest region, since. In Goiânia, two main centers provide care in various practices to SUS users. One of them is the Center for Diagnosis and Treatment of Traditional Chinese Medicine, unique in Latin America, located at the Federal University of Goiás in partnership with the Hebei University of Chinese Medicine<sup>(8)</sup>. The other is an interdisciplinary health unit of medium complexity, the State Reference Center for Integrative Complementary Medicine (CREMIC), which activities exists for 37 years<sup>(9)</sup>.

An important discussion that is being held is

about the training in the area of ICPs in the various professional categories, among them, nursing, the one that stands out because the nursing professional has the ability to develop and mix techniques of approaches that can encourage the user to promote his own health and of those around him. Such approach can prevent complications, recover health, prevent diseases, as a professional who is inserted in the most diverse regions of the country, as well as in the more complex realities faced by Brazilians. Thus, with the use of natural practices and effective technologies such as PIC, nurses have the possibility to develop a therapeutic bond, in addition to providing self-knowledge and security, based on the insertion of the individual in the integration of self-care<sup>(10)</sup>.

It is noticed the importance of knowing the educational and professional profile of nurses who work with ICPs so that training and labor parameters are developed through regulations, resolutions and guidelines that regulate the scope of professional performance and training, in order to ensure the effective functioning of the health system, as well as offering quality care for the community. It is considered that this knowledge will contribute to the strengthening of NPICP.

In this context, this article aims to analyze the educational and professional profile of nurses from the ICPs area of the Central-West Region of Brazil.

## METHOD

This is a descriptive, multicenter study, conducted in Brazil, with quantitative approach (survey type). The macro project is called National Survey on the educational and professional profile of Nurses of Integrative Health and Traditional Practices – ENFICPS in Portuguese, developed by researchers from the following institutions: Federal Universities: of Rio Grande do Sul (coordination); Rio Grande; Santa Maria; Goiás; Catalão; Sergipe; Acre; Espírito Santo; Campinas University; Hospitalar Conceição Group; Aggeu Magalhães Institute and Mossoró Prefecture, contemplating five Brazilian regions.

The study population was composed of

nurses working in the Central-West region of Brazil, whose quantitative data collection was carried out from June 2021 to January 2022. In total, 1,154 nurses from the five regions of Brazil - North, Northeast, Southeast, South and Midwest participated. For the purposes of analysis in this research, only 53 participants from the Midwest region were considered.

The inclusion criteria in the macro project were: have a degree in nursing, do not need to have active registration in COREN and may be retired. As a criterion for exclusion from the macro project, participants who did not complete the online questionnaire were considered. However, it is pointed out that in the case of the Midwest region, there was no exclusion for this reason.

The sample was calculated for a national sample of 582,197<sup>(11)</sup> Brazilian nurses, with 384 participants. No stratified sample calculations were performed, specific to each region of the country, since this survey is a cut from the national survey and the number of participants from the Midwest region was representative of the national sample.

The data collection of the study was carried out by virtual means, using information and communication technologies - ICTs, because it covers the five regions of the national territory, was the best method to make the participants' membership accessible. In addition, data collection was carried out during the covid-19 pandemic, with restrictive measures to personal contact and also with the nursing category immersed in the middle of the care, management and research demands related to this public health emergency.

The virtual resources used for data collection were: a website with basic information on inherent aspects and storage of the model of the Informed Consent, a virtual questionnaire and an interview script with data on the professional profile and training of the nurse. This site was widely publicized by the research institutions, through invitation sent to groups of ICPs in instant messaging application, by Instagram profile @enfICPs, by the participants themselves, by the Brazilian Association of Acupuncturists and Nurses of Integrative Practices (ABENAH), by the Federal Council of Nursing (COFEN) and by

some Corens.

The virtual questionnaire was presented in Lime Survey, composed of 52 questions, 17 to be answered by all nurses, divided into nine questions related to sociodemographic profile and eight to professional profile. The remaining 34 questions were answered specifically by nurses who claimed to have some training in integrative practices. There were two on general training; 15 on ICPs training; 17 on professional performance. It was not possible to measure the average time for completing the questionnaire, especially because it is self-filling. The pilot test, conducted with six participants, estimated the average time of 25 minutes.

For data analysis, descriptive statistics were used, with identification of absolute and relative frequency, and inferential statistics, by means of bivariate analysis by chi-square test and exact Fisher's test, as applicable, to verify the association between variables. The significance level used was  $p \leq 0.05$ . For this, the software Statistical Package for the Social Sciences (SPSS) version 23.0 was used.

The analyzed variables considered for this research were: gender, birth, age, religion, having children, race/color, marital status, income, active registration in Coren, legal nature of the work institution, period of professional life in which met the ICPs, ICPs training area, frequency of ICPs courses, spending on ICPs training, ICPs activity is performed in the workplace, place of professional performance, type of service in which uses the ICPs and type of employment relationship. In the bivariate analysis, it was used as a dependent variable "has ICPs training" and the others were considered independent variables.

The research was reported according to the recommendations of Strengthening the reporting of observational studies in epidemiology (STROBE)<sup>(12)</sup>. The project was approved by the Ethics Committee under CAAE n. 43306921.6.0000.5347 and followed the guidelines of the National Health Council's resolution n. 466/2012, which deals with research on human beings.

## RESULTS

According to Table 1, it can be seen that the female gender was more recurrent 84.9%; being 100% Brazilian, with a predominant naturalness of states in the Midwest region (64.1%). Regarding age, 73.6% were between 30 and 59 years old, 66% described being of the Christian religion. Still, 58.5% of the

participants have children, 52.8% declared themselves white. As for marital status, 47.2% of the participants are married. The most frequent values of monthly income were 3 to 4 minimum wages (26.4%), and 14 participants claim to have more than 9 minimum wages (26.4%).

**Table 1.** Distribution of the sociodemographic and economic profile of nurses in the Central-West region of Brazil. Brazil, 2022.

| Variables                   | Frequency (N) | Percentage (%) |
|-----------------------------|---------------|----------------|
| <b>Gender</b>               |               |                |
| Male                        | 7             | 13,2           |
| Female                      | 45            | 84,9           |
| No response                 | 1             | 1,9            |
| <b>Place of birth</b>       |               |                |
| Midwest                     | 34            | 64,1           |
| Northeast                   | 2             | 3,8            |
| North                       | 4             | 7,6            |
| Southeast                   | 6             | 11,3           |
| South                       | 6             | 11,3           |
| No response                 | 1             | 1,9            |
| <b>Age</b>                  |               |                |
| 15-29 years                 | 7             | 13,2           |
| 30-59 years                 | 39            | 73,6           |
| 60 years or more            | 3             | 5,7            |
| No response                 | 4             | 7,5            |
| <b>Religion/Doctrine</b>    |               |                |
| Afro-Brazilian              | 3             | 5,7            |
| Atheist/none                | 11            | 20,7           |
| Buddhism                    | 1             | 1,9            |
| Christian                   | 35            | 66,0           |
| Other                       | 3             | 5,7            |
| <b>Skin color/ethnicity</b> |               |                |
| Yellow                      | 2             | 3,8            |
| White                       | 28            | 52,8           |
| Indigenous                  | 1             | 1,9            |
| Black                       | 1             | 1,9            |
| Brown                       | 21            | 39,6           |
| <b>Marital Status</b>       |               |                |
| Married                     | 25            | 47,2           |
| Stable union/lives together | 10            | 18,9           |
| Single                      | 10            | 18,9           |
| Divorced                    | 8             | 15,0           |
| <b>Have children</b>        |               |                |
| Yes                         | 31            | 58,5           |
| No                          | 22            | 41,5           |
| <b>Income</b>               |               |                |
| Up to 2 minimal wages       | 5             | 9,4            |
| From 3 to 4 minimal wages   | 14            | 26,4           |
| From 5 to 6 minimal wages   | 9             | 17,0           |
| From 7 to 8 minimal wages   | 11            | 20,8           |
| More than 9 minimal wages   | 14            | 26,4           |

Source: Research data.

Table 2 shows that 98.1% of the respondents had active CORENs registration,

43.4% were public servants and 71.7% related to the legal nature of the institution as a public

one. The highest frequency of training time referred to "More than 240 months" (34.0%), then "More than 120 and less than 180 months"

(20.8%) and 56.6% referred to specialization or residency as the highest level of graduate education.

**Table 2.** Distribution of the performance profile and professional training of nurses in the Central-West region of Brazil in 2022.

| Variables   | Frequency (N) | Percentage (%) |
|---|---------------|----------------|
| <b>Has active registration (Coren)</b>                        |               |                |
| Yes   | 52            | 98,1           |
| Does not have/does not apply                                  | 1             | 1,9            |
| <b>Current employment situation</b>                           |               |                |
| Retired/pensioner   | 3             | 5,7            |
| Employee  | 14            | 26,4           |
| Self-employed   | 13            | 24,5           |
| Public servant  | 23            | 43,4           |
| <b>Legal nature of the institution</b>                        |               |                |
| Public  | 38            | 71,7           |
| Private   | 9             | 17,0           |
| Self-employed   | 4             | 7,5            |
| Philanthropic   | 1             | 1,9            |
| No response   | 1             | 1,9            |
| <b>Weekly working hours</b>                                   |               |                |
| 20 hours  | 3             | 5,7            |
| 36 hours  | 7             | 13,2           |
| 40 hours  | 25            | 47,2           |
| 44 hours  | 4             | 7,5            |
| More than 44 hours  | 13            | 24,5           |
| Not working   | 1             | 1,9            |
| <b>Graduation time</b>  |               |                |
| Less than 12 months   | 2             | 3,8            |
| More than 12 and less than 36 months                          | 7             | 13,2           |
| More than 36 and less than 60 months                          | 4             | 7,5            |
| More than 60 and less than 120 months (5 to 10 years)         | 7             | 13,2           |
| More than 120 and less than 180 months (10 years to 15 years) | 11            | 20,8           |
| More than 180 and less than 240 months (15 years to 20 years) | 4             | 7,5            |
| More than 240 months  | 18            | 34,0           |
| <b>Completed postgraduate studies</b>                         |               |                |
| Specialization/residency                                      | 30            | 56,6           |
| Academic Master's Degree                                      | 7             | 13,2           |
| Professional Master's Degree                                  | 4             | 7,5            |
| Academic doctorate  | 5             | 9,4            |
| Postdoctoral  | 1             | 1,9            |
| Did not perform   | 6             | 11,3           |

**Source:** Research data.

Table 3 shows that 84.9% of the participants have ICPs training. Of these, 44.4% knew the ICPs in the middle of their professional career; 26.7% during graduation, 17.8% knew at the beginning of their professional career and only 6.7% learned about the practices before graduation. It is observed that, as for the training in ICPS, 77.8% have training in auriculotherapy, followed by 48.9% in acupuncture, 44.4% in Reiki; 40.0% in ventosotherapy, 31.1% in aromatherapy and

moxibustion. Floral therapy and natural therapies corresponded to 28.8% each. The frequency of training in these practices is one to three times a year, which corresponds to 48.9% of the total, followed by "whenever I get a free opportunity", with 42.2%, and more than seven times a year, with 6.7%. The annual expenditure for courses involving practices, R\$1,000.01 to R\$3,000.00, occurs in 33.3% of participants and more than three thousand with 24.4%.

**Table 3.** Distribution of the ICPS training profile of nurses in the Central-West region. Brazil, 2022.

| Variables   | Frequência (N) | Percentage (%) |
|---|----------------|----------------|
| <b>Has training in ICPS</b>                                       |                |                |
| Yes   | 45             | 84,9           |
| No  | 8              | 15,1           |
| <b>When you learned about ICPS as an area of nursing practice</b> |                |                |
| Before graduation   | 3              | 6,67           |
| During graduation   | 12             | 26,7           |
| At the beginning of the professional career                       | 8              | 17,8           |
| In the middle of the professional trajectory                      | 20             | 44,4           |
| At the end of the professional career                             | 2              | 4,4            |
| <b>ICPS that has training</b>                                     |                |                |
| Acupuncture   | 22             | 48,9           |
| Auriculotherapy   | 35             | 77,8           |
| Meditation  | 8              | 17,8           |
| CTM   | 7              | 15,6           |
| Moxibustion   | 14             | 31,1           |
| Ventosotherapy  | 18             | 40,0           |
| Ayurveda Medicine   | 6              | 13,3           |
| Biodanza/Circular dance/Dance therapy                             | 3              | 6,7            |
| Reiki   | 20             | 44,4           |
| Bioenergetics   | 1              | 2,2            |
| Family Constellation  | 3              | 6,7            |
| Natural Therapy   | 13             | 28,8           |
| Aromatherapy  | 14             | 31,1           |
| Flower therapy  | 13             | 28,9           |
| Hypnotherapy/Musicotherapy  | 2              | 4,4            |
| Osteopathy/quiropatic/massage therapy/foot reflexology            | 7              | 15,5           |
| Ozone therapy/Orthomolecular                                      | 9              | 20,0           |
| Integrative community therapy                                     | 6              | 13,3           |
| Others  | 1              | 13,3           |
| <b>Frequency of ICPS training</b>                                 |                |                |
| Whenever I get a free opportunity                                 | 19             | 42,2           |
| From 4 to 6 times per year  | 1              | 2,2            |
| From 1 to 3 times per year  | 22             | 48,9           |
| More than 7 times per year  | 3              | 6,7            |
| <b>Annual expenditure on courses at ICPS</b>                      |                |                |
| Up to R\$500,00   | 8              | 17,8           |
| From R\$500,01 to R\$1.000,00                                     | 7              | 15,6           |
| From R\$1.000,01 to R\$3.000,00                                   | 15             | 33,3           |
| More than R\$3.000,01   | 11             | 24,4           |
| Others  | 4              | 8,9            |

We can observe that 67.9% perform some ICPS activity in their workplace; 28.3% work in the PHC, followed by 17% in private clinic/office and itinerant care, and 3.8% in outpatient clinic at public university. In the modality of care, 56.6% correspond to

individual care, followed by 11.3% with group educational actions and 5.7% with collective care, permanent education for health professionals, family care and telecare (Table 04).

**Table 4.** Distribution of the professional profile of nurses in the Central-West region, regarding professional performance in ICPS. Brazil, 2022.

| Variables  | Frequência (N) | Percentage (%) |
|--|----------------|----------------|
| <b>Perform activities with ICPS in your work routine</b> |                |                |
| Yes  | 36             | 67,9           |
| No   | 9              | 17,0           |
| Does not apply   | 8              | 15,1           |
| <b>Workplace that works with ICPS</b>                    |                |                |
| First aid post*  | 5              | 9,5            |
| Basic Care   | 15             | 28,3           |

|   |    |      |
|---|----|------|
| Traveling Service                             | 9  | 17,0 |
| Private clinic/office                         | 9  | 17,0 |
| Admission to a private hospital               | 1  | 1,9  |
| Does not apply                                | 14 | 26,4 |
| <b>Service modality**</b>                     |    |      |
| Group educational activities                  | 6  | 11,3 |
| Collective care                               | 3  | 5,7  |
| Family care                                   | 3  | 5,7  |
| Individual service                            | 30 | 56,6 |
| Continuing education for health professionals | 3  | 5,7  |
| Teleservice                                   | 3  | 5,7  |
| All alternatives                              | 2  | 3,8  |
| Does not apply                                | 11 | 20,8 |

\*First aid post (hospital público, universidade privada e voluntário = 1, cada; universidade pública =2). \*\* It was possible to mark more than one alternative.

Table 5 shows that there is statistical significance between the variable "current work situation" and its categories with the variable "has ICPs training". When the expected count is higher than the observed count, there is

correlation between the variables, so that the retirees/pensioners, employees without a portfolio and with service by contract presented association with nurses who have training in ICPs.

**Table 5.** Association of independent variables related to the sociodemographic and professional profile with the dependent variable has ICPs training of nurses in the Central-West region. Brazil, 2022.

| Variables                           | Has training in ICPs |                  |              |
|-------------------------------------|----------------------|------------------|--------------|
|                                     | Observed count       | Expected count * | p-value**    |
| <b>Work Situation</b>               |                      |                  |              |
| Retired/pensioner                   | 2                    | 2,6              | <b>0,012</b> |
| Employee without a work card        | 1                    | 3,5              |              |
| Provision of service under contract | 7                    | 7,9              |              |
| <b>Training time as a nurse</b>     | 2                    | 1,2              | 0,316        |
| <b>Religion</b>                     | 1                    | 1                | 0,232        |
| <b>Race/color/ethnicity</b>         | 1,6                  | 1,6              | 0,550        |
| <b>Weekly workload</b>              | 1,1                  | 1,1              | 0,332        |
| <b>Have a postgraduate degree</b>   | 4                    | 4                | 0,355        |
| <b>Legal Nature</b>                 | 4                    | 2                | 0,755        |
| <b>Place of birth</b>               | 0,73                 | 0,73             | 0,994        |
| <b>State in which you work</b>      | 2,7                  | 2,7              | 0,773        |
| <b>Gender</b>                       | 4                    | 4                | 0,709        |
| <b>Age</b>                          | 1,5                  | 1,5              | 0,561        |

## DISCUSSION

The female gender was more observed; this finding goes in the direction of other studies found in the literature<sup>(4,13)</sup>. Nursing is a profession whose millennial identity is linked to the female, who has always associated the practice of health care to women, a role that was imposed on her since the emergence of human civilization, where she was a healer and holder of an empirical knowledge of health practices, disseminated among her descendants<sup>(14,15)</sup>.

This profession is undergoing changes in its rejuvenation, and 40% of this population are

between 36-50 years old<sup>(16)</sup>. This corroborates the findings of this study, where 76.3% of nurses are aged between 30 and 59 years. Other researchers also report that approximately 40% of nursing professionals, aged 36 to 50 years, are in the process of expanding their cognitive skills, nursing techniques and practices. In other words, they are prepared and qualified to enter the labour market permanently.

The religions of greater predominance in Brazil are of Christian character (Catholic 50%, evangelical 31%), which corroborates this study, where 66% of the participants declared their religiosity or belief in Christianity. It is known that religion, belief and spirituality are

related to the behavior and personal and professional perceptions of individuals and, in nursing, this also occurs<sup>(17)</sup>. For the assistance to be integral, it is important to include the spiritual dimension of the user, and this relates to how the nurse himself experiences his beliefs regarding spirituality in caring<sup>(18)</sup>.

Regarding income, the Midwest region has a differentiated profile, according to the survey conducted by Cofen-Fiocruz in 2017. According to its final report, contrary to the low-income labor scenario in Brazil, nurses' income was higher - between two and nine minimum wages (26.4%)<sup>(19)</sup>. However, nursing suffers from financial inequalities and the devaluation of its labor force<sup>(20)</sup>.

This fact is demonstrated in the nursing profile survey in Brazil, where more than 100,000 nurses from the public sector and 60,000 from the private sector have incomes less than or equal to R\$3,000.00 and only 1.6% have remuneration higher than 9 minimum wages<sup>(19)</sup>. Another proof of this is the fulfillment of the national wage floor payment, approved in 2022.

Nursing is an active profession in the labor market, since only public legal employability for nurses is large, accounting for 65.3%, followed by the private sector, which hires 29.7% of the labor force<sup>(19,21)</sup>. These findings meet those of this study, where the employability of the public sector reaches 71.7% and that of the private 17%. Although these numbers are high, it does not mean that the working conditions of one public sector are better or worse than another: more than five thousand public sector nurses find if in conditions of under wages and about 87 thousand professionals of this sector are overworking<sup>(19)</sup>.

After long struggles for the regulation of nursing working hours, at the end of 2023, the Supreme Court (STF) decided on a minimum working week of 44 hours linked to the new national wage floor (R\$4,750.00) and in case of reduced working hours the pay will be reduced<sup>(22)</sup>. In this survey, 47% of the participants work 40 hours per week.

In 2017, the percentage of nurses working on the 31-40 hour schedule was 35.4% and, up to 60 hours per week, it was 28.6%. Despite

this, a large contingent (about 53 thousand nurses) changed jobs due to salary dissatisfaction and working conditions and now, to receive the updated wage floor, it will be necessary to fulfill a minimum workload of 44 hours per week, that is, a workload more than what most worked in the other years<sup>(19)</sup>.

In the PHC of Porto Alegre, 30% of the 124 nurses participating in a study had training in ICPs<sup>(23)</sup>, while in the Brazilian Midwest region, 84.9% of the nurses had such training. In the state of Santa Catarina, out of 386 nurses participating, 36.8% had training in practices, and 28.2% used auriculotherapy as a tool for care to people with Systemic Arterial Hypertension (SAH)<sup>(15)</sup>, fulfilling the NPICPs recommendations on the use of ICPs in various health/disease issues with the aim of assisting the treatment of the user<sup>(3)</sup>.

Among the 53 participants in this study, 67.9% declared to use ICPs in the work process, which corresponds to 75% of the total participants with training in ICPs. Currently, it is not possible to state the reasons for nurses who have training in ICPs do not use these practices in the work process, but it is possible to infer that the existence of fragility in the regulation of professional the lack of inputs and the overload of work based on the fulfillment of goals are possibilities that would merit investigative exploration. In the results found in the analysis of the macro project of which this study is part, nurses from the northeast region with work in hospital reported that including ICPs in the work process can overload activities. This statement was not found in the responses of nurses working in other spaces in that region<sup>(24)</sup>.

In a particular study, the main practices that nurses would like to have training are acupuncture (45%), phytotherapy (45%) and homeopathy (42.5%)<sup>(13)</sup>. What is striking is that, unlike the data found above, auriculotherapy does not appear, and in this study, 77.8% of nurses have training in this technique, while phytotherapy and homeopathy were not practices that appeared as prevalent training in this study.

According to the Health Information System for Primary Care (SISAB in Portuguese), in the Midwest, in 2023, about 19,500 practices were



offered, with auriculotherapy (12,611), CTM (1,455), acupuncture (954) and phytotherapy (842) the most used as treatment by nurses of SUS<sup>(25)</sup>.

Acupuncture is considered one of the best known treatment tools around the world, given that the movement of ICPs has begun to spread through it<sup>(26)</sup>. However, as we can see through this study and SISAB, the practice that nurses most use and have training is auriculotherapy. As proof of this, the Southeast is the region with the largest number of ICPs offers made by nurses, about 133,500 in 2023, and of these, 83,190 visits were in auriculotherapy and 14,195 in acupuncture. The South region, which is the second largest region in practice offer (105,395), made available, in 2023, 61,388 auriculotherapy services, while acupuncture services were 10,053<sup>(25)</sup>. It is noticed, then, that the findings of this study corroborate the national data, since 77.8% of nurses have training in auriculotherapy, contributing to the growth of this practice within SUS.

PHC has been using the ICP as a strategy to improve integral care for the subject, and the PNPIC itself emphasizes that these practices should be prioritized in PHC to ensure continuity and comprehensiveness of care in the community. This statement is corroborated in this study, since 67.9% of the nurses perform activities in their work routines, and 28.3% are in primary care<sup>(27,28)</sup>.

In one study, about 5,500 PHC establishments, such as Health and Family Health Strategies Centers (FHS), incorporated the practices into their care, while only 337 private clinics and 294 hospitals made use of them<sup>(5)</sup>. Compared to the data of this study, five participants reported attending in outpatient clinics and nine in private clinics/offices. In Brazil, the trend of incorporation of ICPS in health facilities is in PHC, demonstrating benefits for the performance of professionals at this level of attention, since they dedicate significant time and resources to train and subsequently, apply this health modality in their clinical practice<sup>(5)</sup>. This information is also verified in the data of table 3, with 42.2% of nurses training on ICPs whenever they receive a free opportunity or 1 to 3 times per year

(48.9%). Of these professionals, 33.3% invest up to R\$3,000.00 per year for their training, that is, the investments are individual and they cost the nurses' budget.

A study carried out in the metropolitan region of Goiânia states that training in ICPs occurs in a heterogeneous way, either through incentives from the federal, municipal and the councils themselves that govern the professional category, or via distance education, semi-presential or presential and even training offered by private educational institutions in which the professional bears the costs of the courses<sup>(29)</sup>. In another study, conducted with health professionals who applied the ICPs in five BHU of the city of Pelotas, Rio Grande do Sul, participants described that they had knowledge about the ICPs in different places as Municipal Health Secretariat (SMS), other professional colleagues, self-interest (books, Internet, among others), with his family, and through universities and extension projects<sup>(30)</sup>.

It is interesting that, in this study, there is a relationship between professionals who had training in this area with the situation of being retired/ pensioners, employees without a signed license and service providers. In one of the studies that are part of the macro project carried out in the state of Santa Catarina, a percentage of 11.3% of nurses service providers and 3.5% of employees without registered license and retired/ pensioners who have training in ICPs was found, already public servants a percentage of 64.8% (15). In this research, what may justify this situation is the fact that 25% of the participants in this study do not use ICPs in their daily work and, according to the authors mentioned above<sup>(15)</sup>, the ICPs can expand the performance of the nurse, providing greater autonomy and quality in care provided.

## CONCLUSION

It was possible to analyze that the nurses from the Midwest region who have a training in ICPs and who responded to this study are mostly women, public servants with specialization and/ or residency, who use these practices in their work routine, with greater performance in PHC, through individual visits

and actions in health groups. It was statistically significant that having training in ICPs is associated with the fact of being retired/pensioners, employees without a registered license and service providers.

These data highlights the importance of promoting debates and dissemination of ICPs in undergraduate, health services, public and private, as well as in CREMIC and the Center for Diagnosis and Treatment in Traditional Chinese Medicine located at the Faculty of Nursing of UFG, and in the extension and research projects of UFCAT, Considering that

they have become important institutions in the consolidation and dissemination of these practices, so that more professionals can train themselves and offer them to users of services and interested people.

In addition to encouraging health managers of federal public services, state and municipal to carry out competitions to hire professionals in the area of ICPs in order to encourage the professional nurse and other areas to seek the ICPs as main training and be able to devote themselves fully to the offer of these practices in their services.

## CARACTERÍSTICAS DO PERFIL EDUCACIONAL E PROFISSIONAL DE ENFERMEIROS DE SAÚDE INTEGRATIVA NO CENTRO-OESTE DO BRASIL

### RESUMO

**Objetivo:** analisar o perfil educacional e profissional dos enfermeiros da área de Práticas Integrativas e Complementares em Saúde (PICS) da Região Centro-Oeste do Brasil. **Método:** trata-se de um estudo descritivo, com abordagem quantitativa (tipo *survey*). Participaram 53 enfermeiros da região Centro-Oeste/Brasil, que responderam a um questionário on-line, com 52 perguntas, de junho/2021 a janeiro/2022. Para análise dos dados, utilizou-se estatística descritiva, análise estatística inferencial (teste qui-quadrado/teste exato de Fisher), com nível de significância de 0,05. **Resultados:** dentre os participantes do estudo, 84,9% declararam ter formação em PICS. Destes, 75% usam as PICS no trabalho, maioria mulheres (84,9%), servidores públicos (43,4%), com formação em acupuntura, auriculoterapia e Reiki. Os enfermeiros que possuem formação em PICS apresentaram associação com significância estatística ( $p=0,012$ ) com os aposentados/pensionistas, assalariados sem carteira assinada e prestadores de serviços. **Conclusão:** Os enfermeiros da região Centro-Oeste que têm formação em PICS e que responderam a este estudo são na maioria mulheres, servidoras públicas, com especialização e/ou residência, que utilizam estas práticas em sua rotina de trabalho, com atuação maior na APS, por meio de atendimentos individuais e ações em grupos de saúde.

**Palavras-chave:** Terapias complementares. Enfermagem. Medicina integrativa. Saúde Pública. Profissionais de Medicina Tradicional.

## CARACTERÍSTICAS DEL PERFIL EDUCATIVO Y PROFESIONAL DE ENFERMEROS DE SALUD INTEGRATIVA EN EL CENTRO-OESTE DE BRASIL

### RESUMEN

**Objetivo:** analizar el perfil educativo y profesional de los enfermeros del área de Prácticas Integrativas y Complementarias en Salud (PICS) de la Región Centro-Oeste de Brasil. **Método:** se trata de un estudio descriptivo, con enfoque cuantitativo (tipo *survey*). Participaron 53 enfermeros de la región Centro-Oeste/Brasil, que respondieron a un cuestionario *on-line* con 52 preguntas, de junio/2021 a enero/2022. Para el análisis de los datos se utilizó estadística descriptiva, análisis estadístico inferencial (pruebas chi-cuadrado y exacta de Fisher), con nivel de significación de 0,05. **Resultados:** entre los participantes del estudio, 84,9% declararon tener formación en PICS. De estos, el 75% usa las PICS en el trabajo, la mayoría mujeres (84,9%), empleados públicos (43,4%), con formación en acupuntura, auriculoterapia y Reiki. Los enfermeros que tienen formación en PICS presentaron asociación con significación estadística ( $p=0,012$ ) con los jubilados/pensionistas, asalariados sin contrato laboral y prestadores de servicios. **Conclusión:** los enfermeros de la región Centro-Oeste que tienen formación en PICS y que respondieron a este estudio son en su mayoría mujeres, empleados públicos, con especialización y/o residencia, que utilizan estas prácticas en su rutina de trabajo, con actuación mayor en la APS, a través de atenciones individuales y acciones en grupos de salud.

**Palabras clave:** Terapias complementarias; Enfermería; Medicina integrativa; Salud Pública; Profesionales de Medicina Tradicional.

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