

Original Article

Where are we from and where are we? The academic education of Occupational Therapy professors that are working at public Universities in Northeast Brazil

De onde somos e onde estamos? Formação acadêmica dos docentes de terapia ocupacional de universidades públicas do nordeste do Brasil

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Abstract

Introduction: The historical process of Occupational Therapy courses in Brazil and the academic profile of their teachers are factors that influence the training of professionals and the scientific development of the profession. **Objective:** To characterize the academic titles of professors who work in Occupational Therapy courses at public Universities in the Northeast region of Brazil and reflect about institutional and professional trajectories. **Method:** Descriptive, quantitative study, using public data from the Lattes Platform and official Universities websites. Descriptive statistics and spatial analysis were used to analyze the data using graphic resource and image production software, such as Excel®, PowerPoint® and QGIS2.18.3°. **Results:** 86 resumes of professors of Occupational Therapy courses at public institutions in the Northeast were analyzed. Only 20% entered with a doctorate or concluded it in the year of admission. The courses in Paraíba and Sergipe received the largest number of professors from other states, especially from the Southeast of the country. There was a greater number of professors who obtained a master's degree in Alagoas, Pernambuco, and São Paulo. Most doctoral degrees took place in Pernambuco and São Paulo. More than 90% of the professors held postgraduate courses in Health Sciences (68%) and Humanities (25%), in Public Health, Education and Health Sciences programs. **Conclusion:** The institutions have a diverse team of teachers. The academic education was related to physical dislocation in the country. We pointed to the importance of the policies that encourage science in the Northeast because it can strengthen the profession and alleviate regional inequalities.

Keywords: Higher Education, Professional qualification, Occupational Therapy.

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Resumo

Introdução: O processo histórico dos cursos de terapia ocupacional no Brasil e o perfil acadêmico de seus professores são fatores que influenciam a formação dos profissionais e o desenvolvimento científico da profissão. **Objetivo:** Caracterizar as titulações acadêmicas de docentes que atuam em cursos de terapia ocupacional em Instituições de Ensino Superior públicas da região nordeste do Brasil e realizar reflexões sobre as suas trajetórias acadêmicas, considerando formação e inserção nas instituições analisadas. **Método:** Estudo descritivo, quantitativo. Utilizou-se dados públicos da Plataforma Lattes e sites das Universidades. Para analisá-los, foi utilizada estatística descritiva, análise espacial e *softwares* de produção de recursos gráficos (figuras), como *Excel*®, *Powerpoint*® e *QGIS2.18.3*®. **Resultados:** Foram analisados 86 currículos de docentes de terapia ocupacional em instituições públicas nordestinas. Apenas 20% ingressaram com doutorado ou concluíram no ano do ingresso. Os cursos da Paraíba e de Sergipe receberam maior número de docentes de outros estados, sobretudo do Sudeste. Observou-se maior quantidade de docentes que obtiveram mestrado em Alagoas, Pernambuco e São Paulo. A maioria dos doutorados ocorreu em Pernambuco e São Paulo. Mais de 90% dos docentes realizaram pós-graduações nas Ciências da Saúde (68%) e Humanas (25%), em programas de Saúde Coletiva, Educação e Ciências da Saúde. **Conclusão:** As instituições possuem corpo docente diversificado em áreas/localidades das formações. Em termos de graduação/pós-graduação, foi constatada forte tendência de deslocamento dos docentes entre as regiões do Brasil. O investimento em políticas de incentivo à ciência no Nordeste pode fortalecer a profissão e amenizar desigualdades regionais.

Palavras-chave: Educação Superior, Formação Profissional, Terapia Ocupacional.

Introduction

The first occupational therapy courses in Brazil, created in the mid-1950s, were characterized by being technical and short in duration. Called rehabilitation courses, they were linked to colleges, institutes, hospitals and/or medical departments and were located in the Southeast region of the country (Reis & Lopes, 2018; Nascimento et al., 2022).

Although the Faculty of Medicine of Recife, in 1960, opened public training in Rehabilitation, it was from the 1970s onwards that there was an increase in the number of occupational therapy courses in the Brazilian Northeast. During this period, Decree-Law No. 938 of 1969 (Brasil, 1969) was approved, which recognized the training of professional occupational therapists as having higher education in the country.

To briefly describe the foundation of Northeastern courses, it is necessary to mention in advance that graduate training in occupational therapy in Pernambuco has a history that diverges from other courses in the Northeast region. This is because Pernambuco offered a rehabilitation course in 1960, more than two decades before the founding of other public and northeastern courses. In this course, students could choose occupational therapy to graduate. During this period, it was located on the premises of Hospital Dom Pedro I. In the 1970s, the former Rehabilitation course began offering classes solely with an emphasis on occupational therapy, and left the

premises of Hospital Dom Pedro I to be located at the University Federal District of Pernambuco (UFPE), in Recife (Reis & Lopes, 2018; Silva et al., 2022). This course continues to this day at UFPE, and is the oldest public occupational therapy course in the Northeast region.

Currently, there are six occupational therapy courses in operation located in public (state and federal) Higher Education Institutions (HEIs) in the Northeast. After the founding of the UFPE course – the process described in the previous paragraph –, there was a gap of more than a decade for other courses to be built and started in public HEIs in the Northeast. In subsequent paragraphs, the historical processes of the other courses are reported.

In the 1990s, some representatives from the Governador Lamemha Filho Foundation (FUNGLAF) made a request to open an occupational therapy course in the state of Alagoas. The representatives were successful in their proposal, and the course began in 1997, at the Alagoas State University of Health Sciences (Uncisal), in the city of Maceió. The Uncisal course is the second oldest occupational therapy course in the Northeast at a Brazilian Public Higher Education Institution (Silva et al., 2022).

In the 2000s, through Decree no. 6.096, of April 24, 2007, the Support Program for Restructuring and Expansion Plans of Federal Universities (Reuni) was created in Brazil. The program's goal was to expand the supply of places in Higher Education. Through Reuni, new university campuses were built across the country and some were expanded (increased number of courses). One of Reuni's objectives was also to reduce social inequalities, considering that access to the education system can transform people's trajectories (Brasil, 2007).

Reuni marked an important historical moment in the implementation of undergraduate courses in occupational therapy in the Northeast, since two Universities built and started graduate training based on this program, such as the Federal University of Paraíba (UFPB) and the Federal University of Sergipe (UFS). In Paraíba, the offer of places for the first occupational therapy class took place in 2010, on the campus in the city of João Pessoa. In Sergipe, the course started in 2011, located in the municipality of Lagarto, in the interior of Sergipe (Duque et al., 2021; Nascimento et al., 2022).

In 2013, the Federal University of Rio Grande do Norte (UFRN) approved the political pedagogical project for an occupational therapy course (PPC) that would be located at the Faculty of Health Sciences of Trairi. The course was expected to begin in 2015. The course is scheduled to operate on the campus of the municipality of Santa Cruz, in the interior of Rio Grande do Norte, but, despite the aforementioned approval, the degree has not been implemented to date. According to records, the pedagogical project for the Facisa/UFRN course is awaiting the completion of bureaucratic procedures with the Ministry of Education (Rio Grande do Norte, 2018). Furthermore, the creation of a commission to update the PPC was announced (Conselho Regional de Fisioterapia e Terapia Ocupacional da 1ª Região, 2021).

More recently, in 2019, the Northeast was awarded the opening of an occupational therapy course located at the State University of Ceará (UECE), in the capital Fortaleza. This was the fifth course in a public HEI founded in the Northeast region of Brazil. In 2021, the course at the Universidade Federal da Bahia (UFBA) began, located at the Faculdade de Medicina da Bahia, in Salvador. The latter became the sixth to begin its activities in a public HEI in the Northeast.

It is important to mention that, currently, the state of Pernambuco has a new occupational therapy course located in Recife, at the University of Pernambuco (UPE), having already held its first competition for teachers and its first entrance exam. However, until April 2023, the official bodies and websites had not announced the start of their activities and there is no information available about the course's teaching staff/professionals, which made collecting data about it difficult.

Occupational therapist researchers have dedicated themselves to writing about the history of academic institutionalization of occupational therapy. However, it should be noted that these studies have not aimed to understand the academic trajectories of faculty at public universities in the Northeast (Lopes et al., 2014; Folha et al., 2019; Lancman & Mângia, 2017; Folha et al., 2019; Petten et al., 2019; Monzeli, 2021; Nascimento et al., 2022).

Obtaining data on teacher training trajectories is important to discuss the conditions for improving higher education teachers and investments in technology and research in the country. For this article, obtaining data on undergraduate and postgraduate training trajectories means understanding the journeys made by teachers to complete their training and to enter the public institutions analyzed here, including the areas of postgraduate training, the year of entry into the public HEI where they currently work, among others.

Regarding the relevance of collecting and analyzing data from the aforementioned trajectories, it is known that academic titles, especially the doctorate title, are mandatory criteria for Brazilian researchers to lead research groups linked to the National Council for Scientific and Technological Development (CNPq). In addition to this, teachers are also required to have this title so that they can compete for notices that offer financial resources for scientific research. Thus, obtaining a doctorate degree is something that influences, for example, the production of articles in journals and the inclusion of professors in Postgraduate Programs, something important for the scientific development of a profession. Furthermore, teachers at public HEIs in the country need to deal with teaching, extension and bureaucratic demands.

Understanding academic shifts, as proposed in this research, may be important so that, in future studies with teachers, it is also possible to understand theoretical and practical perspectives arising from training. It is understood that these perspectives influence professional practices in the HEIs where teachers work.

The historical process of the courses and the academic profile of their teachers influence the training of professionals. Studies like this can be important triggers for thinking about the specificities of courses and professionals who work in the Northeast. The aim here is to encourage a discussion of the processes of academic institutionalization of occupational therapy from the Northeast, reflecting on regional characteristics, advances and challenges.

It is clarified that in the phrase “where we are from and where we are”, presented in the title of this article, the words “where we are from” refer to the undergraduate and postgraduate training (master’s and doctorate) of occupational therapy teachers who work in northeastern institutions analyzed. The words “where we are” refer to the public institutions in the Northeast where these teachers work. The phrase seeks to allude to the movements of academic displacement (for the purposes of obtaining degrees and professional insertion in HEIs) of occupational therapist researchers.

In view of the above, this study had the general objective of characterizing the academic qualifications of teachers who work in occupational therapy courses in public Higher Education Institutions in the Northeast region of Brazil and reflecting on their academic trajectories, considering training and insertion in the HEIs analyzed.

Method

This is a descriptive and quantitative study, which used public data (or secondary data) found on the official websites of Higher Education Institutions (HEIs) in the Public sector (Ministério da Educação), as well as the data contained in the Lattes Platform (Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq).

The institutions' official websites have access tabs for the Centers, Faculties or Departments where occupational therapy courses are located. After that, you can find links that refer to information about the “faculty”. On the Lattes Platform, it is possible to find the “search CV” tab and obtain information about the training and titles of researchers registered on the platform. It should be noted that, on this Platform, the teacher is responsible for filling out academic data and must be responsible for the veracity of this data.

In the case of a course that did not have information about who the professors were on the university's official website, the data was collected through e-mail contact with the coordinator, who promptly responded with the requested information. It is important to state that to collect public data it is not necessary to obtain a certificate of approval from the Research Ethics Committee.

The collection period started in March 2023 and ended in April of the same year. As a collection instrument, the researchers used a “general data table”, containing the following variables: a) place where the teacher graduated in occupational therapy; b) public university where the professor is currently affiliated in the Northeast region; c) year in which the professor joined this university as a teacher; d) year in which the occupational therapy course opened at the university where it works; e) state of the university where it works; f) city in which the campus of the university in which it operates is located; g) year of obtaining a master's and/or doctorate degree; h) university and state where he/she obtained the academic title(s); and i) area and program of the academic title(s) obtained (Major Area of title described by the teacher on the lattes platform – CNPq).

The CVs of teachers who did not have a degree in occupational therapy were excluded, as well as the CVs of teachers who had not yet started or completed their master's degree (who were specialists or had a master's degree in progress). The recently created course in Pernambuco was excluded from the analysis, as, at the time of collection, the course did not have a coordination email for contact or public data about its teaching team or the beginning of its activities.

For analysis purposes, only titles that were finished were considered, and titles that had not been completed by the data collection period were not considered. There was no distinction between academic and professional master's degrees, between master's and doctorate degrees done abroad or done in Brazil, or between permanent professors and professors with temporary contracts/substitutes. This last criterion is justified because some occupational therapy courses in the region had a significant number of temporary teachers.

After applying the inclusion and exclusion criteria, a total of six official websites of public universities that have occupational therapy courses in operation and are located in the Northeast region were analyzed. 86 academic CVs (Lattes CVs) of teachers working in these courses were analyzed. Figure 1, below, was inserted in the text to illustrate the sample analyzed.

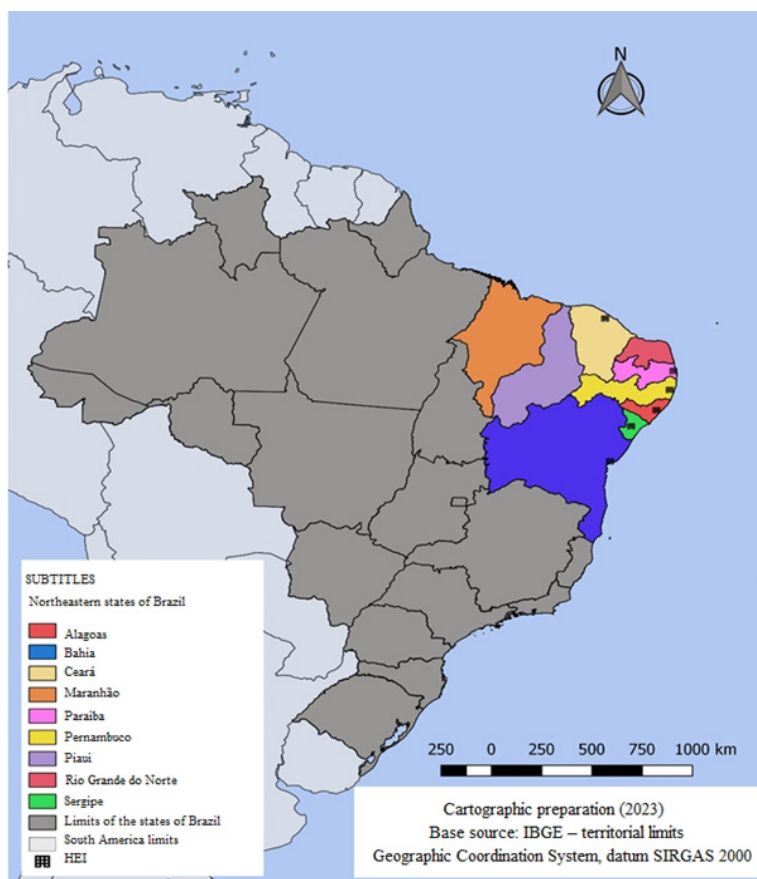


Figure 1. Map of Brazil highlighting the federation units of the Northeast region and the location of the six Public Higher Education institutions.

Source: Elaborated by the authors (2023).

The organization of the data in the general framework used during collection generated an illustrative figure. The purpose of the figure was to visually demonstrate the timeline of creation of the six courses in the Northeast and the admissions of teachers over the years, with their respective years of entry and obtaining the doctorate degree.

The objective of representing this resource was to mark the facts in a linear sequence, over the years, and is a tool that facilitates the observation of information and comparative analysis between HEIs. The length of the timeline refers to the period designated between the year the professor joins the HEI and the year they obtain their doctorate degree. For this analysis, specifically, only the doctorate degree was considered (as it is considered the last academic improvement degree).

After the aforementioned step, descriptive statistics and spatial analysis techniques were carried out. For this, software for producing graphic resources (figures) was used, such as Excel®, Powerpoint® and QGIS2.18.3® software (Creative Commons – Attribution – Share Alike 3.0, CC BY-SA, Las Palmas, California, USA), respectively.

Considering the 27 Brazilian federation units (UF) as the unit of analysis, the cartographic base of Brazil was used with a projection corresponding to the SIRGAS 2000 Universal Coordinate System (Geocentric Reference System for the Americas), available on the Brazilian Institute website of Geography and Statistics (IBGE).

Specifically for the spatial analysis regarding the location of obtaining the master's and/or doctorate degree, titles obtained outside the national territory were not considered. Therefore, data on obtaining two master's degrees and two doctoral degrees from professors linked to institutions in Alagoas (1 professor) and Sergipe (3 professors) were excluded from this analysis. The reason for excluding the degree obtained abroad in this analysis is because the objective of this stage was to understand those journeys made by teachers to obtain master's and doctorate degrees within the national territory itself. We believe that carrying out an analysis of obtaining titles abroad may go beyond the objective set for this study.

The data used to understand the movements mentioned in the previous paragraph were the UF of the teacher's graduation, UF of the teacher's title (whether master's and/or doctorate) and UF of the teacher's educational institution. To prepare the flow maps, an origin-destination matrix (O-D) was created, being analyzed by generating three maps, namely: 1. O: UF of the teacher's graduation – D: UF of the educational institution the teacher; 2. O: State of the teacher's educational institution – D: State of obtaining the master's degree; 3. O: State of the teacher's educational institution – D: State of obtaining the doctorate degree. The path of the flows was obtained using the Flow maps (*oursins*) plugin, which captured the path between the origin and the desired destination from centroids in UFs throughout the Brazilian territory.

The purpose of creating choropleth maps was to present the spatial distribution of the number of teachers who acquired their degrees in each of the federation units, being counted by title/state, in a cumulative way, and presented using a color gradient. Thus, the darker areas represent a greater number of teachers who trained in that state and/or Federal District.

Results

Data from the CVs of 86 professors from public higher education institutions in the Northeast were analyzed. These teachers worked in four courses at federal institutions and two at state institutions, and met the criteria established in this research. In Figure 2, it can be seen that the first teachers began to join the institutions in the 1980s and records demonstrate the inclusion of teachers over time until the year 2022.

Only 20% of teachers entered with a doctorate or completed their doctorate in the year they joined. When analyzing the period between the year of entry into the educational institution (I) and the year of obtaining the degree (T), it can be noted that this length is greater when entering more remote years, that is, the interstice between the two moments is higher when compared to teachers who joined in recent years.

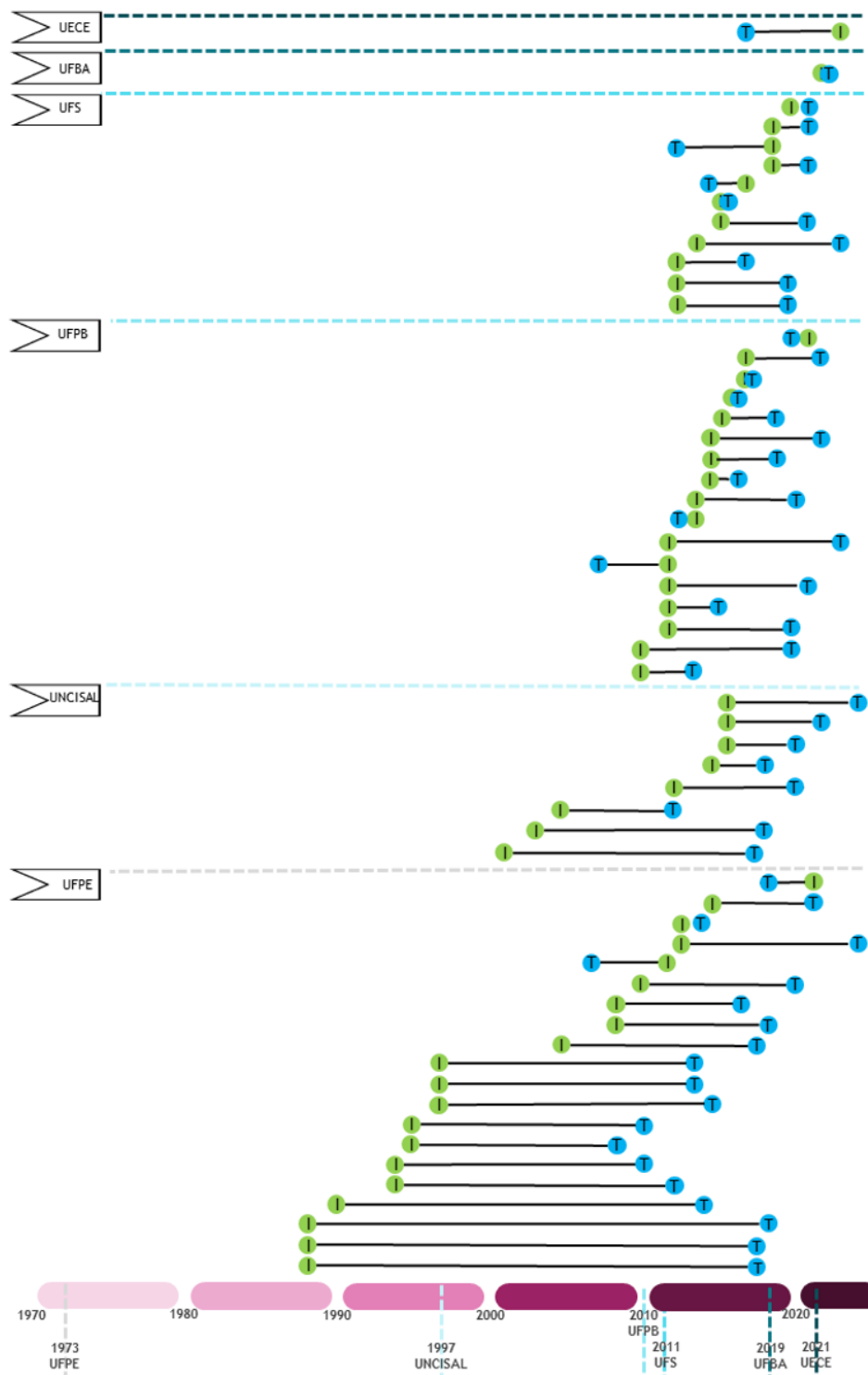


Figure 2. Teacher’s timeline with the date of entry (I) at the Higher Education Institution analyzed (UECE, UFBA, UFS, UFPB, UNCISAL, UFPE) until the date of the last degree (T).

Source: Prepared by the authors (2023).

The maps in Figure 3 illustrate the locations (A, B and C) and number (D and E) of teachers in relation to the search for their degrees (undergraduate, master's and doctorate). It was observed that the institutions in Paraíba and Sergipe were the ones that received the main destinations for flows of teachers from other states, mainly from the Southeast region, characterizing a flow from the Southeast region to the Northeast region. Within the region itself, the origin of formation in the state of Pernambuco and the destination in the state of Alagoas stand out (Figure 3A).

With the results of the component maps in Figures 3B and 3C, greater heterogeneity in master's degree training (in different federation units) can be seen. Even though there was a greater predominance of flows leaving in the Southeast region, there was a movement of greater displacement of teachers in the states of the Northeast region (Figure 3B). This fact does not occur when obtaining a doctorate, as this flow is mostly observed, especially to the state of São Paulo and little movement in the Northeast region (Figure 3C).

Comparing on the maps the federation units that produced teachers in terms of master's and doctorate degrees, it was observed that the states of Alagoas, Pernambuco and São Paulo presented, visually, stronger colors. This indicates that the number of teachers who obtained a master's degree in these states is higher (Figure 3D), a fact similar to the map that observed the obtaining of a doctorate, since the states of Pernambuco and São Paulo were those with the highest number of teachers with degrees in these states (Figure 3E).

Some results stand out based on the analysis of the 3D and 3E maps, such as: although these locations were more comprehensive in Figure 3D, covering states that make up the Northeast, Central-West, Southeast and South regions, the amount of training, in most federative units, there are between 1 and 3 teachers (3D and 3E); there is no teacher who has pursued a master's and/or doctorate degree in the North region (3D and 3E); The teachers at the Pernambuco Higher Education Institution mostly completed their degrees in their state of origin, which is also the state of the teaching HEI (3D and 3E); of the 10 states that had professors pursuing a doctorate degree, only two (Pernambuco and São Paulo) had between 11 and 20 professors, with all the others in the range between 1 and 3 professors who completed their doctorate in that UF (3E).

Figure 4 summarizes the areas of postgraduate programs that were carried out by professors at public HEIs in the Northeast. Considering the Major Areas of postgraduate degrees designated by CNPq on the Lattes Platform, it was observed that more than 90% of teachers completed their postgraduate degrees in programs that were linked to Health Sciences (68%) and Human Sciences (25%), characterizing a hegemony of degrees linked to programs registered as in the health area.

When analyzing only the categories of postgraduate programs that were studied by professors, it is clear that the main categories are not necessarily linked to health sciences, which was the predominant major training science. The main programs carried out by teachers are linked to Public Health, Education and Health Sciences, respectively. The Postgraduate Program in Occupational Therapy, at the Federal University of São Carlos, occupied the fourth position in the number of teachers who obtained a master's and/or doctorate degree, but corresponds to only 9.3% of choices when compared to the total of postgraduate programs taken by professors (Figure 5).

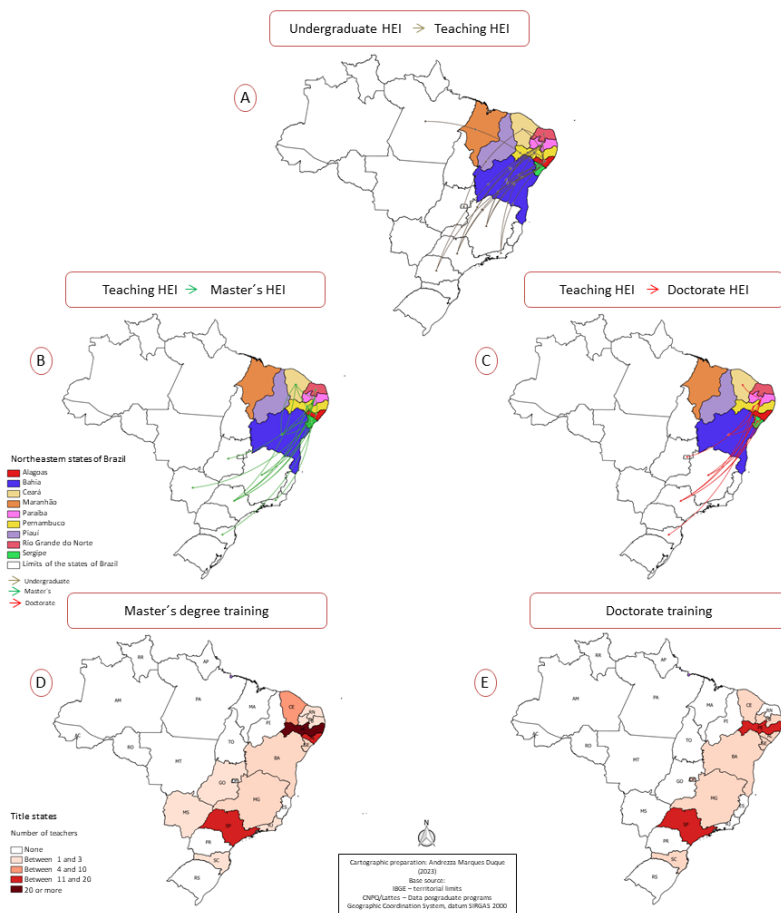


Figure 3. Flow maps and distribution maps of teachers by unit of the Brazilian federation. A – Flow map between the undergraduate institution (origin) and the educational institution (Destination); B and C – Flow map between the educational institution (origin) and the postgraduate program institution (destination); D and E – Distribution of the number of teachers who completed postgraduate studies.

Source: Prepared by the authors (2023).

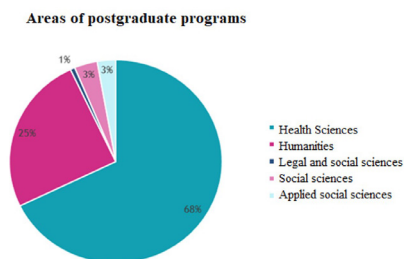


Figure 4. Representation of the Major Areas of postgraduate programs carried out by professors from Public Higher Education institutions in the Northeast.

Note: The results presented in this graph are cumulative, that is, the areas were added together, regardless of whether they are a master's degree or doctorate.

Source: Prepared by the authors (2023).

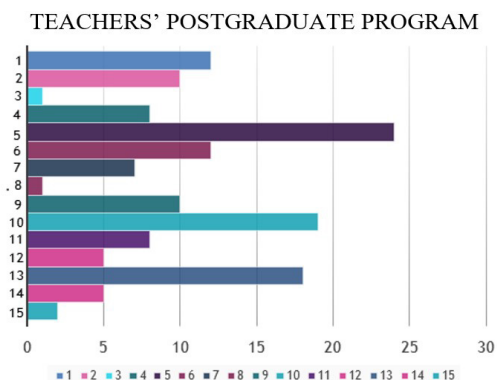


Figure 5. Distribution of categories of postgraduate programs taken by professors at Public Higher Education institutions in the Northeast, 2023. Caption: 1. Occupational Therapy; 2. Sociology/ Social Sciences/ Social Work/ Administration and Society/ Teaching, Philosophy and History of Sciences; 3. Health of Human Communication; 4. Maternal and Child Health/Child and Adolescent Health; 5. Collective Health/Public Health; 6. Social Psychology/ Psychology/ Clinical Psychology/ Cognitive Psychology; 7. Neuropsychiatry and Behavioral Sciences/Neurosciences; 8. Interdisciplinary Studies on Women, Gender and Feminism; 9. Physical Education/ Nutrition/ Psychiatric Nursing/ Gerontology/ Nursing; 10. Education/ Special Individual Education/ Health Education/ Health and Technology Education/ Education and Health/ Special Education; 11. Developmental Disorders/ Rehabilitation Sciences/ Human Motricity Science; 12. Design/ Design and **Graphic Expression/ Production Engineering**; 13. Health Sciences/ Health Care/ Health and Technology/ Interdisciplinary in Health Sciences/ Sciences/ Medical Sciences/ Education in Health Sciences; 14. Language Sciences/Literature and Linguistics/Linguistics; 15. Legal and Bioethical Aspects of Health/ Bioethics.

Note: The results presented in this graph are cumulative, that is, the areas were added together, regardless of whether they are a master's degree or a doctorate.

Source: Research data.

Discussion

The data presented in this research portray the reality of the professional training of teachers who carry out their activities in public universities in the Northeast region of Brazil. It was possible to reflect on the insertion of these teachers in the academic sphere, given the path of institutionalization of undergraduate courses in the northeastern states and, consequently, the professional trajectories of these teachers.

The results obtained revealed that, although the teachers analyzed in this study are working in occupational therapy courses in the Northeast region, they also completed their postgraduate training in other Brazilian regions. The teaching staff of HEIs in the states of Alagoas and Pernambuco, to a large extent, is made up of graduates from the region itself. In other institutions, especially in the states of Paraíba and Sergipe, teachers moved mainly from the Southeast region to work in the Northeast. This characteristic was also observed when obtaining master's and doctoral degrees, because, although there was a greater diversity of states that provided master's level training for these teachers, in quantitative terms, there was greater training in the states of Pernambuco and São Paulo.

In the courses analyzed, it was observed that professors who joined the Northeastern Higher Education Institutions in which they currently work longer ago took a longer period to start and complete their doctoral studies (when we consider the date of the professor's entry into the institution and the date of completion of the professor's doctorate). The professors who joined the northeastern institutions analyzed more recently completed their doctorate degrees shortly after joining the institution, in the same year of joining, or even during their first year after joining the HEI.

With this data, some issues must be clarified in the following paragraphs, such as: the Brazilian reality regarding occupational therapist researchers; the limitations that are imposed on teachers who do not have a doctorate; the different responsibilities of higher education teachers; and the fact that most of the courses analyzed were implemented recently.

Lopes et al. (2014), when carrying out a consultation with the CNPq Group Directory, observed that, of the professors with doctorates inserted in groups in the area of occupational therapy, 47,7% completed their doctorate between 1990 and 2005, and 52,3% completed it between 2006 and 2014. This last period, in which the majority obtained their degrees, is very close to the period of greatest concentration of doctorate degrees that were obtained by the professors in this research. In this way, the quantitative increase in doctoral degrees in this period may be related to the Brazilian reality of occupational therapy, linked to the growth of courses and specific Postgraduate Programs and in related areas in recent years.

Despite this growth, especially in recent years, it was found that there are master teachers in all the courses analyzed. Given the researcher's scenario in the Brazilian context, this fact may limit access to some resources for research and other responsibilities that are restricted to doctors, such as the opening of research groups and the opening or inclusion in a *Stricto Postgraduate Program Sensu* (Sousa et al., 2022). The lack of a doctorate degree results in practical limitations to pursuing an academic career focused on the research pillar. However, it is necessary to consider the existence of legislation on employment contracts and academic careers, which establish professional contours in advance.

It is important to discuss that, in Brazil, when a professor enters the teaching career in undergraduate courses at public HEIs, there are other job duties that are not exclusively focused on research or continuing education. It is also noteworthy that the qualification of a teaching staff, in terms of didactic-pedagogical skills for teaching in higher education, is relevant and should not be considered less important than the completion of master's and/or doctorate degrees (Paiva, 2010).

When reflections are made on the relationship between the time of entry into the course and the time of completion of the teacher's doctorate, it must also be considered that, of the six courses analyzed, four began in the last thirteen years. This is a recent trajectory that has certainly brought to teachers the work demands related to the implementation and recognition of a course.

Authors such as Folha et al. (2017) describe that, although the period of institutionalization of *stricto sensu* postgraduate courses was regulated in Brazil in the 1950s and 1960s, the insertion of occupational therapists in these spaces only occurred from the 1990s. Furthermore, the creation of Specific occupational therapy programs

occurred only in 2009 and 2015, being master's and doctorate programs, respectively (Lancman & Mângia, 2017).

Another issue to be considered in and by occupational therapy is that the undergraduate teaching staff in occupational therapy is essentially made up of women, since the institutionalization of the first courses until today (Morrison, 2016; Lima, 2021). Even though no data was produced in this research that establishes a causal relationship between gender and academic productivity, it is possible to point out disadvantages for women in the job market and gender differences related to teaching advancement (Monteiro & Altmann, 2021). The study by Souza et al. (2021), for example, identified that there is an overlap between teaching work and women's domestic and private work, which can cause a conflicting relationship between these activities.

Regarding the training trajectory of teachers, in the newer courses (with emphasis on the teams from Paraíba and Sergipe), the groups of teachers are, to a large extent, trained in occupational therapy by HEIs that are outside the Northeast region. Considering this, the master's and/or doctorate training of these teachers also tends to occur outside the Northeast, especially in the Southeast, with emphasis on the state of São Paulo. On the other hand, the state of Pernambuco had a significant number of teachers who graduated in Pernambuco and who completed their master's and doctorate degrees in the state itself.

It is interesting to note that this result is on par with what has been historically constructed in terms of academic institutionalization of occupational therapy. Once again, the pioneering historical construction of Recife and São Paulo can be seen, as discussed by Reis & Lopes (2018) when dealing with the origins of the first Brazilian occupational therapy courses. These two places, where occupational therapy courses are currently located in public HEIs, are strong metropolitan centers for their states and regions and have university campuses that have ample opportunities in terms of continuing education. It is understood that this may have caused the endogenous training of teachers in these Brazilian locations, which may also have been a necessary movement for the survival, advancement and consolidation of the courses and the profession.

Furthermore, a study by Sousa et al. (2022), who analyzed the scientific profile of researchers from the Northeast and Southeast regions of Brazil, pointed out that the Southeast had a greater number of masters and doctors. Likewise, results from the research by Santos et al. (2012) indicated that the Southeast and South of the country have scientific productions that are different from other regions. The authors mentioned the inequality of policies to encourage the training of masters and doctors in Brazil, specifically in relation to research financing, indicating the importance of developing strategies that can overcome regional disparities.

Although a curricular and academic analysis of teachers was carried out here, it cannot be forgotten that many of the disparities between the Northeast and Southeast regions and even the South region of the country have historical roots. It is explained that such historical disparities are intertwined with the enslavement and exploitation of the Northeastern people and the devastating appropriation of their territory by European colonizers. The period referred to as "post-slavery" and immature industrialization generated clusters of communities in situations of poverty in the region. These issues culminated in non-access or unequal access to several issues, including the one we are dealing with in this article: education and technology (Bernardes, 2007).

The Brazilian federal constitution describes the State's obligation to take care of the country's regional inequalities. However, it is not yet possible to say that regional disparities are on their way to being overcome. Even so, the Northeast has been a place of resistance and strengthening, with an expansion of the university network in recent years, as shown by the data presented here.

The quantitative increase in occupational therapy courses and vacancies in the region, and the increase in masters and doctors are also part of a movement facilitated by the Federal Government, through programs aimed at repairing regional inequalities. Reuni, in 2007, aimed to expand vacancies and create institutions in Higher Education, with the North and Northeast regions benefiting from the program (including occupational therapy courses in Paraíba and Sergipe, for example).

Citing the importance of the State in reducing regional inequalities, the Interdisciplinary Master's and Interdisciplinary Doctorate Programs (MINTER/DINTER) also constitute advances that are the result of government concerns. These programs aim to offer academic training to the Northeast, North and Central-West through institutions that, for the most part, are located in the Southeast and South states, which have older and more consolidated Postgraduate Programs.

Several Higher Education Institutions in the Northeast, including those of the courses analyzed here, benefited from the expansion of places and campuses via Reuni and from training from universities in the Southeast via MINTER/DINTER (Brasil, 2017). According to Fazzio (2017), in the bill that created the sectoral funds in 1998 – with the aim of reducing regional inequalities and decentralizing resources that were largely applied in the southeast – there is a specific clause that establishes the obligation to that a minimum percentage of 30% of revenues must be invested in the North, Northeast and Central-West regions.

Given this, it is understood that, despite the existence of incentives for technology and research in the Northeast, such as those already mentioned, the region is historically marked by inequalities in terms of financing in this area. Therefore, it is necessary to continue putting pressure on state leaders, thinking about strategies aimed at establishing proportional investment parities and increasing opportunities.

Thus, the search by teachers who graduated in occupational therapy in the Northeast for vacancies in Postgraduate courses in the Southeast may represent a movement of displacement that seeks greater opportunities, policies, programs and funding aimed at research. The fact that occupational therapists trained in other regions of the country have been joining as teachers in courses in the Northeast may also be a reflection of an expansion of the educational and scientific field in the Northeast.

Through the analysis carried out, it was found that the postgraduate training of the teachers covered in this study took place, predominantly, in programs within the Greater Health Area. This data was completed by the teachers and is indicated in the analyzed curricula and indexed in the National Council for Scientific and Technological Development.

It is explained that undergraduate courses in occupational therapy in Brazil have been institutionalized in centers and colleges focused on professional training in the health area (Reis & Lopes, 2018). At CNPq, occupational therapy researchers are participants in the area of Health Sciences, according to that organization's Table of Knowledge Areas. It is also clear that 25% of teachers completed their training in Human Sciences, this being the second most significant area among the teachers analyzed.

In addition to the hegemonic history of the profession, it is noteworthy that, in 1880, practices were recorded that raised the problems caused by a capitalist social organization, and that had a political and critical focus already at that time (Monzeli, 2021). Specifically in Brazil, occupational therapists in the 1970s “[...] understood the political-social dimension of their practice and sought to participate in social action projects and institutions until then distant from their interests” (Barros et al., 2002, p. 97), mainly influenced by social problems and imposed by the dictatorship that the country was experiencing.

In this way, the story helps to explain the interest of occupational therapists in the present study in postgraduate courses linked to Human Sciences, since the answers to many questions may have come from discussions that took place in Social Assistance, Sociology, Psychology and even in the area of Education. Furthermore, in Brazil, there are resolutions, policies and programs that allowed and still allow the insertion of occupational therapists in devices/equipment in different Brazilian sectors, such as education, social assistance, and social security equipment.

The other areas presented in Figure 4 demonstrate the multiplicity of training of teachers on courses in the Northeast. This data also represents the concreteness of what the training and practice of occupational therapy is today since, in Brazil, the profession relates and interacts with different areas, sectors and professions. It is believed that this diversity is beneficial both for the subjects served by the profession and for the exercise of interdisciplinarity during teacher training, as it can expand and strengthen scientific partnerships from different areas of knowledge, regions of the country and even different countries.

It is also necessary to reflect on the impact of these issues on undergraduate training, emphasizing the importance of the student in this process. Thus, it is considered that the diversity of teaching training may have qualified graduates to carry out the process of attention/care for the subjects' daily lives/occupations based on theoretical-practical knowledge from different fields and centers of the profession.

However, Avelar & Malfitano (2022) stress this issue, mentioning that it is a dialectical relationship. The authors discuss that, on the one hand, diversity in training can help the expansion of the category in terms of job vacancies in different services, but, on the other hand, that such multiplicity can also be one of the factors responsible for a lack of academic knowledge as well as the social aspect of the profession. According to the authors mentioned, this could be causing confusion about the role played by professional occupational therapists in practice locations.

When considering this reality, it is believed that these teachers' search for training in related areas can have numerous advantages, as previously exemplified. However, it is appropriate to point out that this fact may not strengthen occupational therapy professionally or scientifically, since the results presented here demonstrated that training in occupational therapy programs still remains much lower when compared to other areas of postgraduate training.

Although there has recently been a great achievement for occupational therapy, with the creation of two new master's degrees in the Southeast in 2019 (the Professional Master's in Occupational Therapy and Social Inclusion Processes at the University of São Paulo – USP and the Academic Master's in Studies of Occupation at the Federal

University of Minas Gerais – UFMG), it is pointed out that there is still no *stricto sensu* postgraduate course implemented in the Northeast region (Petten et al., 2019).

The creation of a *stricto sensu* postgraduate course in occupational therapy can contribute to the development and scientific appreciation of the profession. By investing in the opening of courses of this nature, it is also possible to encourage and promote the teacher training process with a view to meeting the needs of undergraduate courses in occupational therapy, obtaining important financing and responding to local training needs.

Given the inclusion of occupational therapists in postgraduate programs in related areas, publications about/for occupational therapy and publications in specific occupational therapy journals may be compromised. This is because the products resulting from dissertations and theses in these programs also end up being publications about and in journals in related areas, including because it is a requirement established in the internal regulations in many of these postgraduate programs.

Publications in interdisciplinary journals can increase the recognition and appreciation of occupational therapy. However, it is an issue that must be debated, as publications in profession-specific journals tend to strengthen and legitimize occupational therapy as a field of scientific knowledge, as described by Folha et al. (2019, 2017).

Challenges and problems related to the CAPES area of knowledge in which occupational therapy is included can be mentioned. Considering the insertion in the Greater Area of Health Sciences and the Area of Knowledge of Physical Education, specific occupational therapy journals are not favored. This area includes physical education, speech therapy, physiotherapy and occupational therapy courses, and is commonly designated as Area 21 of Coordination for the Improvement of Higher Education Personnel. The disadvantage of journals can be explained since scientific journals and researchers are faced with a classification/evaluation system based on the area of Health, which can make research in the field of knowledge of occupational therapy in interface with Human and Social Sciences invisible.

This system considers, as one of the criteria, the journal's impact factor. Among other things, the number of citations of articles, the periodicity of publications and the area of insertion are analyzed (Carvalho et al., 2020). Therefore, we believe in the need for permanent representation of occupational therapy researchers on advisory committees in this area. This is necessary so that scientific specificities can be outlined through contributions in these discussion spaces and, consequently, strategies can be developed to minimize the challenges and problems already mentioned.

Conclusion

Public higher education institutions in the Northeast have a diverse teaching staff in terms of areas of postgraduate training, as well as in terms of the locations in the country where this training was carried out. Following the proposal to create new undergraduate courses in the Northeast, teachers at these HEIs had a shorter time between joining the institution and the time it took to acquire a doctorate degree, and completed training in postgraduate programs, especially doctoral ones, in the Southeast region.

Only a small percentage of teachers trained in areas other than health. Furthermore, it can be mentioned that the number of teachers who work in this region and who completed a master's or doctorate degree in a specific occupational therapy program is still low. This data demonstrates that it is necessary to pay attention to the low number of these programs and the absence of specific programs in the Northeast.

As a limitation of the study, it is worth highlighting the fact that the HEI websites are not always updated, and the Lattes Platform curricula are updated by the researchers/teachers themselves. Outdating CVs or inserting information that was incorrect for some reason may have led to information bias. This limit demonstrates the importance of Brazilian teachers and researchers always checking the current nature of their information and keeping this public data organized on official websites.

Future research can be carried out with the aim of monitoring the development of undergraduate courses in the Northeast region and the insertion and participation of teachers in this process. The discussion about the precariousness of teaching work in Brazil is also something that should be investigated and that can complement the results of this article through future studies.

Regarding the question “where are we from and where are we”, the research results demonstrated that, in the HEIs in the states of Alagoas and Pernambuco, a large part of the teachers are graduates from the region itself and sought training in programs in Alagoas and Pernambuco. In all other institutions analyzed, with emphasis on data from the states of Paraíba and Sergipe (more recent institutions and fruits of the REUNI program), teachers moved mainly from the Southeast region and did a large part of their postgraduate training also in southeastern states.

It is considered urgent to continue reflecting “where we are from and where we are”, understanding that we “are” our history, but “we are” in an arduous process of construction. Investments in incentive policies and postgraduate programs in the Northeast can contribute to professional training, the appreciation of the profession and the recognition of the fundamental role of teachers in the training of new occupational therapy professionals.

Discussing science and teaching work in Brazil based on the Northeast is not possible without mentioning national inequalities and opportunities historically denied to the region. Despite this, we understand that it is important to record this situation so that we can have data to solve challenges. Finally, we hope that teachers from northeastern institutions can strengthen themselves collectively, and that they can in the future guide, in their studies and practices, possible northeastern specificities of teaching work and professional performance in the area of occupational therapy.

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Author's Contributions

Marina Batista Chaves Azevedo de Souza and Andreza Marques Duque contributed equally to the text design stages, organization of sources and analyses, writing of the text and reviewing the manuscript. All authors approved the final version of the text.

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