

**Original Article** 

# Teaching assistive technology in undergraduate courses in occupational therapy in the State of São Paulo

Ensino de tecnologia assistiva nos cursos de graduação em terapia ocupacional do Estado de São Paulo

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# **Abstract**

Introduction: Knowledge about assistive technology is related to aspects of the field of occupational therapy, thus, it is questioned whether such knowledge has been addressed in undergraduate courses. Objectives: To identify the undergraduate courses in occupational therapy in the state of São Paulo that offer disciplines related to assistive technology, identify the disciplines, their respective workloads and the content present in each of them. Method: The sample consisted of eight universities, five public and three private. The search was made in the curricular matrices, teaching plans of specific and non-specific disciplines, objectives and contents available online or requested from the course coordinator. Descriptive data analysis was performed. **Results:** It was found that assistive technology content was offered in the investigated universities, with a difference between the workload and the content offered. The analysis by assistive technology application area showed that the content on orthoses is offered in 100% of the analyzed courses, followed by assistive products for the performance of daily activities and prostheses, both contents found in 75% of the courses; mobility equipment; accessibility and universal design in 62.5%; alternative communication in 50% of the courses. **Conclusion:** The results point to the relevance of greater homogeneity of content between the investigated universities and suggest that this study has the potential to foster discussions about the formation of occupational therapists in the assistive technology area, since the results come from the analysis of undergraduate courses located in the state which has the largest number of occupational therapy courses in Brazil.

**Keywords:** Assistive Technology, Occupational Therapy, Higher Education, Professional Qualification.

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## Resumo

Introdução: O conhecimento sobre tecnologia assistiva relaciona-se aos aspectos do domínio da terapia ocupacional, assim, interroga-se se tal conhecimento tem sido abordado nos cursos de graduação. Objetivos: Identificar os cursos de graduação em terapia ocupacional no estado de São Paulo que ofertam discipinas referentes à tecnologia assistiva, identificar as disciplinas, suas respectivas cargas horárias e o conteúdo presente em cada uma delas. Método: A amostra foi composta por oito universidades, cinco públicas e três privadas. A busca foi feita nas matrizes curriculares, planos de ensino de disciplinas específicas e não específicas, objetivos e conteúdos disponibilizados on-line ou solicitados ao coordenador de curso. Realizou-se análise descritiva dos dados. Resultados: Constatou-se a oferta do conteúdo de tecnologia assistiva nas universidades investigadas, com diferença entre a carga horária e o conteúdo ofertado. A análise por área de aplicação da tecnologia assistiva evidenciou que o conteúdo sobre órteses é oferecido em 100% dos cursos analisados, seguido de produtos assistivos para o desempenho de atividades cotidianas e de prótese, ambos conteúdos encontrados em 75% dos cursos; equipamentos para mobilidade; acessibilidade e desenho universal em 62,5%; comunicação alternativa em 50% dos cursos. Conclusão: Os resultados apontam a relevância de uma maior homogeneidade de conteúdo entre as universidades investigadas e sugerem que este estudo tem potencial para fomentar discussões sobre a formação do terapauta ocupacional na área da tecnologia assistiva, uma vez que os resultados advêm da análise dos cursos de graduação localizados no estado que possui o maior número de cursos de terapia ocupacional no Brasil.

**Palavras-chave:** Tecnologia Assistiva; Terapia Ocupacional; Ensino Superior; Formação Profissional.

### Introduction

Global data show that, currently, more than one billion people need one or more assistive products. Furthermore, with an aging population and increasing disabling health conditions, more than 2 billion people will need at least one assistive product by 2030 (World Health Organization, 2018). The United Nations (UN) Goals for Sustainable Development (United Nations, 2015) indicate seventeen integrated and indivisible goals, based on real global demands to achieve a better and more sustainable future for all. One of the objectives of the UN refers to the construction of an inclusive society based on equal value, rights and respect for human diversity, including people with disabilities. When it comes to promoting functionality and eliminating barriers, AT represents an indispensable element in enabling people with disabilities to live more independent, healthy, productive and dignified lives (World Health Organization, 2018).

Initiatives such as the WHO Global Disability Action Plan 2014-2021, by the World Health Organization (World Health Organization, 2015), and the 4th National Conference on the Rights of Persons with Disabilities in Brazil (Brasil, 2016) discussed strategies aimed at including people with disabilities in society, through measures to remove architectural, communicational, attitudinal barriers and increase access to education, health and rehabilitation services. In both events, AT was mentioned as one of the essential tools to achieve the proposed objectives.

AT encompasses the application of interdisciplinary knowledge related to products, strategies, methodologies and services that seek to promote functionality and social participation (Brasil, 2009). The AT concept is in line with the concepts of functionality and disability described in the International Classification of Functioning, Disability and Health (ICF), signed by the World Health Organization (World Health Organization, 2001). In this sense, AT implies the possibility of minimizing and/or excluding participation restrictions that impact occupational performance, which results from the combination between the person's intrinsic conditions and the personal and environmental contexts in which he/she is inserted.

AT is linked to government public policies aimed at education, health, rehabilitation and human rights. In this context, it has aroused the interest of scholars from different areas and has gained support through the political intention of making viable guidelines that support and disseminate the development of scientific works and that promote the insertion of curricular content related to AT since high school. to postgraduate training (Brasil, 2004, 2015).

From the point of view of occupational therapy practice, Resolution CNE/CES n. 6/2002, which establishes the national curriculum guidelines for undergraduate courses in occupational therapy in Brazil, highlights that, among the skills and abilities necessary for professional practice, it is necessary to "know Assistive Technology and Accessibility, through the indication, preparation and training of devices, adaptations, orthoses, prostheses and software" (Brasil, 2002, p. 3). Similarly, Resolution n. 316/2006 of the Federal Council of Physical Therapy and Occupational Therapy (COFFITO) states in its article 2 that "The occupational therapist is responsible for using Assistive Technology in Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs) [...]" (Brasil, 2006).

It can be said that AT is directly related to aspects of the occupational therapy (OT) domain, which reside in knowledge about the relationship between the individual, their involvement in meaningful occupations and the social and environmental contexts in which they operate. OT professionals are concerned with the final result of participation, and one of the strategies to facilitate it consists of adapting and modifying the environment or objects that make up the environment, when necessary (American Occupational Therapy Association, 2020).

AT has been used by OT as one of the intervention strategies in different areas of activity (Baleotti et al., 2020; Baleotti et al., 2018; Calheiros et al., 2019; Klein et al., 2015), positively impacting in the functionality of its users (Ivanoff et al., 2006).

On the other hand, studies showed that occupational therapists, although they felt empowered to implement and indicate AT products, had the perception that their academic training was flawed with regard to teaching AT (Alves et al., 2012). In the same direction, a study carried out by Pelosi & Nunes (2009), with Brazilian occupational therapists and speech therapists, showed that most of these professionals were unaware of the assistive products used for Alternative Communication (83%), among them, communication boards, (67%), communicators (91%) and adapted computers (80%).

In this perspective, it is fundamental that OT undergraduates are equipped with theoretical and practical knowledge that allows them to implement AT through more integrated, comprehensive interventions, in an interdisciplinary perspective. Undoubtedly, this leads to

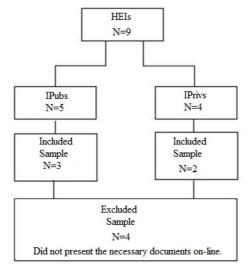
reflection on the professional training that has been offered in public and private universities, questioning whether such knowledge has been addressed in undergraduate courses in OT.

The state of São Paulo concentrates the largest number of undergraduate courses in OT in operation in the country (Brasil, 2018). In this context, discussing the theoretical and practical training of occupational therapists in the Brazilian state that has the largest number of courses is a relevant element in the search for sources for the discussion on graduate training to work in the AT area. Given these considerations, the general objective of this study was to identify undergraduate OT courses in the state of São Paulo (SP) that offer disciplines that address content related to AT teaching. The specific objectives were: to identify the disciplines on AT and their respective workloads and to analyze the content present in each one of them.

# Method

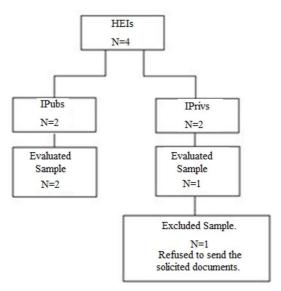
The present study was approved by the Research Ethics Committee of a local University, under Opinion n. 3.139.700. Exploratory research, which has the "[...] main purpose of developing, clarifying and modifying concepts and ideas, based on formulated problems that are more precise or on researchable hypotheses for further studies [...]" (Gil, 2008, p. 27), as it sought to gather information that would contribute to rethinking the way in which OT training in the AT area has been carried out in the state of SP. Sample selection and data collection were carried out from January to July 2019.

For the identification and selection of undergraduate courses, initially, a consultation was carried out on the website of the Ministry of Education and Culture (e-MEC), with a view to identifying the Public Higher Education Institutions (IPubs) and Private Higher Education Institutions (IPrivs) that offer OT courses in the state of SP. The e-MEC contained twelve OT courses in activity, however, when consulting the official website of each of the courses, it was found that there were nine courses in operation in the state of São Paulo, among which, five offered by IPubs and four by IPrivs (Brasil, 2019). The methodological steps for sample selection and composition are described in Figures 1 and 2.



**Figure 1.** Sample composition based on consultation on the HEI's websites. **Source:** elaborated by the authors.

Contact was made with the course coordinators of the four HEIs not included in the previous stage in order to request the documents relevant to the progress of the research, as shown in Figure 2.



**Figure 2.** Sample composition based on e-mail contact with course coordinators. **Source:** elaborated by the authors.

Through a previous procedure, the sample of this study was composed of eight HEIs, five public and three private.

As a procedure, documentary research was adopted, which, according to Gil (2008), uses materials that have not been analyzed or that can still be reanalyzed depending on the research objectives. Thus, to obtain the data, firstly, the curricular matrices (MCs) and teaching plans (TP) of all specific (DE) and non-specific (DNE) subjects of undergraduate courses in OT were selected. Then, a careful reading of all the documentation was carried out, in order to identify the subjects with AT content, using the following criteria: mandatory subjects, which contained in the title, and/or in the syllabus, and/or in the objectives , and/or in the syllabus, references to AT teaching. Based on this reading, the TPs were compiled to extract information relevant to the purpose of this study. A descriptive analysis of the data was carried out considering the workload of each of the ND and ND selected, semester of offer and year of the course. With regard to the ND, the analysis of the percentage of the workload in relation to the total workload of each analyzed course was included. Finally, we sought to identify the content offered in the DE and DNE, grouping it by AT application area.

# Results

The eight HEIs participating in this study include in their curriculum matrices specific disciplines (DE) related to the teaching of AT. General information about these disciplines is presented in Table 1.

Table 1. General data on the ND referring to the teaching of AT.

HEI	DISCIPLINE	Theoretical workload	Practice workload	Total workload	Semester/Year
IPub 1	- AT I – Universal design and Prosthesis	15	15	30	1°sem/2 <sup>nd</sup> year
	- AT II – Orthoses and adaptations	30	30	60	1°sem/2 <sup>nd</sup> year
	- Alternative communication	40**	10**	60	*sem/2 <sup>nd</sup> year
	- Human occupation and Therapeutic Resources V: AT and Technical Support Resources		30	30	2º sem/2 <sup>nd</sup> year
IPub 2	- Human occupation and Therapeutic resources VIII: Orthesis and Prosthesis			30	2º sem/3 <sup>rd</sup> year
IPub 3	- Activities and Therapeutic resources: technological resources			30	2º sem/3 <sup>rd</sup> year
IPub 4	- Activities and Therapeutic Resources: AT	40	40	80	2º sem/3 <sup>rd</sup> year
	- Activities and Therapeutic Resources: Activities of Daily living	40	40	80	2º sem/1styear
IPub 5	- Occupational therapy and technologies	60	0	60	*sem/*year
IPriv 1	- Technological activities and Therapeutic Resources			90	2º sem/1styear
IPriv 2	AT, Prostheses, Orthoses and Auxiliary means			96	1º sem/2 <sup>nd</sup> year
ID : 3	- AT: conceptual and structural aspects			40	1º sem/3 <sup>rd</sup> ano
IPriv 3	- Orthoses and Prostheses			60	2º sem/3 <sup>rd</sup> year
	-AT: Resources and strategies			40	2º sem/3rd year

**Source:** elaborated by the authors. Caption: \*it does not appear in the documents in which year and semester the course is taught. \*\*The teaching program includes 10 theoretical-practical hours.

It was considered pertinent to verify the presence of a workload destined to the teaching of practice in the ND of AT, it was observed the distribution of the workload between theory and practice only in the teaching program of IPubs 1 and 4. However, in the analysis of the teaching program, it can be if there is an allusion to the teaching of practice, without specifying its workload, for example:

- [...] skills workshop for making AT [...] practical classes for making orthoses (IPub 2).
- [...] ortheses, making in practical workshops (IPub 3).
- [...] techniques for making orthoses [...] adapting resources for ADL (IPriv 2 and 3).

Next (Figure 3), the result of the analysis of the total HC of AT content offered in ND, compared to the total workload (CHT) of each participating course.

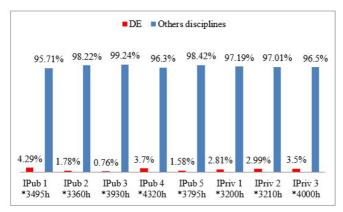


Figura 3. IPub, IPriv, DE and other disciplines.

**Source:** elaborated by the authors. DE: percentage of other subjects; Other disciplines: percentage of other disciplines; \*Total workload of the course.

Next, in Table 2 the results referring to the content offered in the HEIs analyzed are presented, according to the areas of AT application.

**Table 2.** AT application areas and their content.

AT application area	Content	N IES (%)
Accessibility and Universal Design	Concept of accessibility and Universal design, standardization of accessible environmental architecture, analysis of environmental limitations encountered by people with special needs.	5 (62.5%)
Orthoses and Prosthoses	Concept, basic principles for evaluation, prescription, manufacture, understanding of the main models, types of materials and devices, indications for the spine, upper and lower limbs, and use in daily activities. Practice of making orthoses.	8* (100%)
Mobility equipment	Mobility devices, such as wheelchairs, crutches, canes, and walkers, encompassing postural alignment and adaptation.	5 (62.5%)
CSA and Computer Accessibility Features	Educational software computer adaptations, resources, indication and forms of use, applicability in educational, professional, and everyday contexts. Alternative-supplementary systems, low and high technology systems.	4 (50%)
Assistive products for ADLs, IADLs, work and play	Preparation, guidance on the use and follow-up of AT for ADLs, IADLs, work and leisure.	6 (75%)

**Source:** elaborated by the authors. Caption: N IES: Number of HEIs; AT: Assistive Technology; DE: Specific Discipline, AVDs: Activities of Daily Living; AIVDs: Instrumental Activities of Daily Living. CSA: Supplementary and Alternative Communication. \*The content related to prostheses is addressed in six HEIs, while the content of orthoses is covered in the eight HEIs studied.

# Discussion

The fact that the content on AT is offered in DE in the eight undergraduate courses analyzed deserves positive mention, which represent almost all undergraduate courses in

OT in the state of São Paulo (N=9), emphasizing that only one course was not included in the search. The teaching of AT is not recent in OT, since the beginning of the profession has been present, however, with other terminologies. In 1958, the WFOT - World Federation of Occupational Therapy (1958) that, among the techniques and procedures used by OT, was the concern with accessibility, technologies, use and making of adaptations. In addition to AT being part of the profession since its inception, its foundations are in line with current public policies for social inclusion and with the National Curriculum Guidelines for Undergraduate Courses in TO in Brazil (Brasil, 2002), which makes clear that one of the competences and abilities necessary for the exercise of the profession concerns knowledge about AT and Accessibility, emphasizing that it is up to the OT to indicate, prepare and train the use of different assistive devices, in the different areas of application of AT.

It was verified that in the teaching program of two of the HEIs investigated (IPubs 1 and 4) the workload dedicated to practical teaching is explicit. However, in the other HEIs, there was a reference to practical activity, without specifying its workload. This analysis was considered pertinent, since practical activities in disciplines of this nature are relevant for the formation of the future professional, as they make it possible to integrate theoretical contents with the practical dimension of experimentation. Studies have shown that the experience of students of an AT course in the manufacture of AT products aroused greater interest in relation to knowledge related to the subject (Silva et al., 2016), and the insertion of this content in the first years of the course made it possible, gradually and transversally, knowledge about AT throughout the course (Paixão et al., 2016).

Regarding the analysis of the CH of AT content offered in ED, compared to the total workload of the undergraduate courses investigated, it was found that the first one is negligible if we consider the total workload of each course. A similar result was described for a long time in a study carried out by Marins (2011), showing that the total workload offered in subjects that addressed the theme was proportionally low in relation to the mandatory total workload in undergraduate courses in OT in Brazil. In addition, there is a lack of equivalence in the total workload of ND between the HEIs studied, and IPubs 1 and 3, followed by IPriv 1, offer a higher percentage of content related to the teaching of AT, compared to the other HEIs. This data suggests that there may be discrepancies in the training of students regarding the teaching of AT, and this is not interesting, since the TO is one of those responsible for the use of AT in the Brazilian reality (Alves et al., 2012). Thus, both the reduced offer of this content and the discrepancy between HEIs may imply a misunderstanding in the scope of the meaning of AT, with an impact on the training of future occupational therapists.

Although the data indicate a discrepancy in relation to the workload of the ND, the analysis of the ND showed that the teaching of AT is transversally approached in other disciplines that make up the curricular matrices of the analyzed courses, especially in applied disciplines offered in the last years of training degree, which provide specific support for the practice of OT. The professional disciplines allow the student to learn about the different health conditions that affect the subject, about specific intervention techniques and procedures. This knowledge is supported by the fundamentals of OT, which prioritize reflection on the relationship between environmental and personal factors (American Occupational Therapy Association, 2020), and allow OT to

determine individualized, meaningful intervention goals that positively impact the subject's life, the social groups and environments to which they belong. To promote health, participation and involvement in occupation, the use of AT is often necessary.

The results of this study suggest that the formation of OT in the state of São Paulo, Brazil, presents professional perspectives compatible with the assumptions of social inclusion, which emphasize that AT is one of the tools for its achievement. It is interesting that the theme related to AT is not related to one or another specific discipline, as it is relevant for learning in different areas of activity, contributing to the integral formation of students.

With regard to the analysis by AT application area, the results on Accessibility and Universal Design showed that this content is addressed in five HEIs in DE with emphasis on environmental accessibility in collective spaces, as shown in the following examples:

Aspects related to architectural barriers [...] standardization of accessible architecture (IPub 1)

Use of different technologies and adaptations in environments (IPriv 2)

Environmental assessment (IPub 2).

Parallel to AT, the content on Accessibility and Universal Design is important, in order to help the student understand that accessibility to collective spaces, furniture, transport, buildings, among others, must be a guarantee for all people (Brasil, 2004), leading the student to reflect that the lack of accessibility can impact the usability of the product. It is estimated that 30% of acquired AT products are abandoned by the user between the first and fifth year of use, and some are not even used (Phillips & Zhao, 1993; Riemer-reiss & Wacker, 2000). The abandonment of these products occurs for several reasons, among them, the lack of public accessibility (Costa et al., 2015; Cruz et al., 2016). In the same way, Universal Design is a concept that opens up perspective for the design of suitable products and environments that simultaneously serve the majority of possible users, without the need for adaptation or specific design, constituting the elements or solutions that make up accessibility (Brasil, 2004, 2015).

With regard to teaching orthoses, the results are encouraging. It was found that, in the eight HEIs studied, such content is offered in DE. Of these HEIs, 50% also address the theme in DNE, whose content is similar between them, with emphasis on the concept, technical procedures for prescription, preparation, training and monitoring of the use of orthoses. It is known that such knowledge belongs to the OT (Gradim & Paiva, 2018), especially when it comes to upper limb orthoses, thus, it is relevant and essential from the initial training, and should be improved in continuing training. For the OT to be able to develop a careful work in the evaluations and succeed in the manufacture of orthoses, it is necessary to acquire skills, knowledge and experiences (Agnelli & Toyoda, 2003) related to biomechanics, functionality, identification of the best material and its properties for each type of orthosis, considering user demands. These aspects will allow orthoses to be properly prescribed, when necessary, as adjuvants to the rehabilitation process of people with physical dysfunction.

With regard to the teaching of prostheses, it was observed that this content is offered together with orthoses in DE of six HEIs with a predominantly technical focus. Prostheses can be classified according to functional aspects, characteristics of their construction, energy source used for activation and the user's level of amputation, allowing dialogue between different professionals (Rodrigues et al., 2007). However, as in the manufacture and use of orthoses, the rehabilitation of the amputee, in addition to requiring specific knowledge and skills, involves a complexity of factors, and not just technical skills. Rehabilitation must rely on a committed multidisciplinary team that implements actions aimed at preserving physical and mental health, promoting autonomy and social inclusion of the user (Brasil, 2014). In this perspective, it is considered relevant that the HEIs prioritize the interdisciplinary approach in the graduate training of OT, seeking to articulate the different knowledge in the teaching and learning process.

In addition to technical and scientific knowledge, both in the teaching of orthoses and prostheses, it is important that the undergraduate student is encouraged to reflect on the relevance of an expanded view of the subject, the target of the intervention. Success in adherence and ability to use any assistive product is related not only to practical issues, but also to human factors of a personal and social nature, which influence their perceptions and satisfaction, being crucial to guarantee the acceptance and efficiency of the product (Medola & Paschoarelli, 2014; Medola et al., 2019), with consequent impact on usability. By way of example, it was found in the content program of two public HEIs explicit concern regarding personal and social factors, as shown in the following excerpts:

Relate knowledge about different types of orthoses and prostheses, aiming at maximum independence in activities of daily living and practical life [...] user satisfaction (IPub 1)

Recognize the prosthesis and orthosis as an occupational therapeutic resource as it promotes the recovery of functionality and occupational performance (IPub 2).

Although reflections of this nature were not explicitly detected in the NP of the other HEIs analyzed, it cannot be said that they are not present in the teaching and learning relationships that occur in the classroom routine. According to Medeiros (2003, p. 58), occupational therapeutic practice is based on "[...] models that take a more 'humanist' perspective and that, opposing a pragmatic and utilitarian view of therapy, seek to understand human manifestations in a more total way, in their being in the world".

The object of OT attention is the individual, who is a "[...] bundle of relationships and who lives in a certain ethical, political, social, cultural and economic context [...]" (Francisco, 2004, p. 77). This integral and holistic view of the subject is transmitted in the relationships established between professors and students (Baleotti & Omote, 2014), thus, even if not made explicit in the content program, it is to be expected that expanded reflections will occur, directed at social factors, emotional, environmental and cultural of the subjects that can impact the usability of the assistive product.

As for mobility equipment, the results showed that five HEIs (two DE and one DNE from IPubs; two DE from IPrivs) address content related to teaching wheelchairs, crutches, canes and walkers. The literature points to a significant and growing demand for these assistive products, with emphasis on disabilities or reduced mobility resulting

from disability conditions and the aging process. One in seven people live with some type of disability and 80% of them live in developing countries (World Health Organization, 2011). According to the report World Report on Disability (World Health Organization, 2011), disability is part of the human condition and almost all individuals may be temporarily or permanently impaired at some point in their lives. This occurrence is even more frequent in elderly individuals, which is worrying considering the increase in life expectancy of the world population (World Health Organization, 2018). Population aging, as well as disabling health conditions, such as sequelae resulting from cerebrovascular accident (CVA), severe cerebral palsy, traumatic brain injury, among others, increase the demand for AT products, including equipment for functional mobility (Caro et al., 2018; Giaquini et al., 2017), a fact that justifies and exposes the importance of knowledge about equipment for mobility in OT training, so that in their interventions they can add such knowledge with a view to prioritizing social participation, independence and autonomy for people with reduced mobility. With regard to the teaching of Supplementary and Alternative Communication, the results of this study showed that this is contemplated in 50% of the analyzed HEIs (DE of three IPubs and one IPriv). This data is curious, since communication is a necessary skill for occupational performance, the focus of OT interventions. In this sense, changes that occur in communicative skills can limit the subject's interaction with other people in the various physical and social environments that surround him (American Occupational Therapy Association, 2020). CSA has been used by OTs with positive user outcomes (Manzini et al., 2017; Rocha et al., 2015). However, the Brazilian literature is still scarce and indicates the need for more studies that focus on the practice of OT in the field of AC (Manzini et al., 2013). Furthermore, a study carried out with Brazilian TOs showed that most of them were unaware of the resources used for the AAC (Pelosi & Nunes, 2009). These data reveal that the insertion of teaching about AAC is necessary for OT undergraduates in Brazilian universities.

# **Conclusions**

With this study, the objective was to gather data that may contribute to support the discussion and reflection on the teaching of AT in undergraduate courses in TO in the state of SP, Brazil, based on the analysis of the contents present in the curricular matrices and in the plans of teaching subjects related to AT.

The results showed that the teaching of AT in the investigated HEIs is in line with the National Curriculum Guidelines for the OT course and with the public policies of inclusion and social participation. Although the number of hours devoted to the subject is minimal, it can be inferred that in the initial training of OT students there is a concern with offering knowledge and acquiring initial skills so that they can work in the AT area.

Despite the limitation of this study with regard to the analysis of OT courses at HEIs in a single Brazilian state, it is suggested that it has the potential to foster discussions about OT training in the AT area, since the results come from the analysis of undergraduate courses located in the state that has the largest number of OT courses in Brazil. Constituting part of these sources is what is expected with this research, obviously, without intending to exhaust the subject, but to offer a contribution to discussions, especially within universities, regarding the professional being trained. It is recommended that this

study continue through investigations that seek to map the teaching of AT throughout Brazil, with a view to verifying similarities and differences in the formation of OT.

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Marina Alves Teodoro: idealization of the study, acquisition, production, analysis and interpretation of data and intellectual contribution to the writing of the manuscript. Ana Cláudia Tavares Rodrigues: analysis and interpretation of data and intellectual contribution to the writing of the manuscript. Luciana Ramos Baleotti: idealization and definition of the study question, production, analysis and interpretation of data, intellectual contribution to the writing of the manuscript and guidance of the entire research and manuscript development process. All authors approved the final version of the text.

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