

Original Article

Historical pathways of school-based occupational therapists regulations in United States of America¹

Caminhos históricos da regulamentação dos *school-based occupational therapists* nos Estados Unidos da América

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Abstract

Introduction: United States of America (USA) stands out for the expressive number of occupational therapists working in schools and for the production of specific regulations for this professional action. This article derives from a systematic mapping review, in which we collected 190 texts on the theme ‘occupational therapy and schools.’ Ten of them were related to the SBOTs practice (theoretical essays, reflection papers, one official document, and one ‘informative’ paper). **Objective:** To know how this professional regulation took place in the USA, taking laws, documents, and publications. **Method:** A comprehensive analysis of the selected publications (10) and the related legislation (5) was carried out, resulting in a general overview of the subject and a historicization of the regulation of the SBOTs in that country. **Results:** Since 1986, articles have been published for the theoretical debate and reflection on the development of USA occupational therapy practices in schools. Also, publications aimed to constitute theoretical-practical foundations, composing operational consensuses to make feasible the contracting of that service in this sector. The role of the American Occupational Therapy Association (AOTA) was evident, passing through all this construction. However, when certain consensuses were created, professional action was limited to the field of disability, especially focus on children and adolescents. **Conclusion:** Understanding this trajectory may inspire us about the efficient strategies created by occupational therapists in the USA, nevertheless,

¹ This paper is part of the thematic research proposal called “Education, School Inclusion and Occupational Therapy: Perspectives and Production of Occupational Therapists concerning the School”, and it is also part of the research results that will compose a doctoral thesis in progress with the Postgraduate Program in Occupational Therapy at the Federal University of São Carlos.

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it is necessary to apprehend our singularities and to construct organic ways of expanding this field in Brazil.

Keywords: Occupational Therapy/Tendencies, Occupational Therapy/History, Education, Schools, Professional Practice.

Resumo

Introdução: Os Estados Unidos da América (EUA) destacam-se pela quantidade expressiva de terapeutas ocupacionais atuando profissionalmente em escolas e pela produção de regulamentações específicas dessa ação profissional. Este artigo deriva de uma revisão sistemática de mapeamento, por meio da qual reunimos 190 textos em torno da temática “terapia ocupacional e escolas”. Destes, 10 eram textos (ensaios teóricos, artigos de reflexão, um documento oficial e um artigo “informativo”) que se voltavam para a atuação dos “*school-based occupational therapists*” (SBOTs). **Objetivo:** Conhecer os caminhos pelos quais a regulamentação dessa atuação profissional ocorreu nos EUA, tomando-se legislações, documentos e publicações. **Método:** Realizou-se uma análise compreensiva das publicações selecionadas (10) e da legislação relacionada reunida (5), consideradas como documentos a serem também descritos, produzindo-se um panorama geral sobre o tema e uma historicização da regulamentação da atuação dos SBOTs no país.

Resultados: Desde 1986, publicam-se artigos para o debate teórico e a reflexão acerca do desenvolvimento da terapia ocupacional estadunidense nas escolas. A essas, somam-se publicações na direção de constituir fundamentos teórico-práticos, compondo consensos operativos com vistas a viabilizar a contratação do serviço terapêutico-ocupacional nesse setor. Evidenciou-se o papel da associação profissional nacional estadunidense (AOTA), perpassando toda essa construção. Contudo, ao criarem-se determinados consensos, delimitou-se a ação profissional ao campo da deficiência, notadamente voltada a crianças e adolescentes. **Conclusão:** Compreender essa trajetória pode nos inspirar quanto às estratégias eficientes criadas pelos terapeutas ocupacionais nos EUA, não obstante, seja necessário apreender nossas singularidades e construir formas orgânicas de ampliarmos esse campo no Brasil.

Palavras-chave: Terapia Ocupacional/Tendências, Terapia Ocupacional/História, Educação, Escola, Exercício Profissional.

1 Introduction

The parameters about the regulation of the occupational therapist's practices in the education area in the United States of America (USA) and the expressive number of these professionals working with and at the school in that country have aroused the interest of researchers in this area in Brazil. These facts motivated our immersion in legal documents produced in the USA, supporting the professional practice of occupational therapists named as “school-based occupational therapists (SBOT)” and also in publications specifically focused on the elaboration and theoretical debate for the development of this professional action.

It is important to mention that this effort comes from the need to know the reality of the “other” for the production of subsidies regarding the contributions for construction made in Brazil in this area since the 1970s (Rocha, 2007). Specially the

USA legal construction, precisely focusing on the incorporation of the occupational therapist into the school system supported by laws and/or regulations that induce, promote and/or guarantee the “employment” of occupational therapists in schools or the “purchase” of the service offered by those professionals.

Thus, based on the socio-historical perspective (Frigotto, 2000), the objective was to know how the professional regulation of SBOTs was constituted in the USA over the years, considering that it is possible to recognize the merits and limitations of this trajectory, adding elements for reflections that have been made about our reflection, given the international protagonism of this country in the subarea of occupational therapy in education.

2 Contextualization

The motivation for this theme came from a previous work in which we developed an extensive international review of the literature about the interface “occupational therapy and school”² (Lopes et al., 2019). It was a mapping review (EPPI-Centre, 2010), which enabled a description of the knowledge area (Grant & Booth, 2009) and covered the period from 1979 to 2017, bringing together 1,521 publications from the search for “occupational therapy” AND “school” in the Scopus and Web of Science databases. With the reading of their titles, abstracts and keywords, publications that addressed occupational therapy and the school as a focus for occupational therapists, were included resulting in 190 texts.

When categorizing the 190 publications by type, we found research articles, bibliographic reviews and experience reports, but we were also surprised by a specific set of texts (10) categorized as theoretical essays, reflection articles and others³, around the theme of occupational therapy with an interface in school education. Figure 1 shows this general distribution.

² It is based on the assumption of “school” as a place/space in which, involving different individuals, teaching-learning, coexistence and sociability processes are aimed at children, adolescents and young people.

³ In “others” we have American Occupational Therapy Association (2017) and Sears (1988). Although the first one was published in article format, it is an official document published by the American professional association to offer guidelines for SBOTs. The second shows a list of what the author calls “organizational resources” available for school practice, for the knowledge of SBOTs. Both will be better described below.

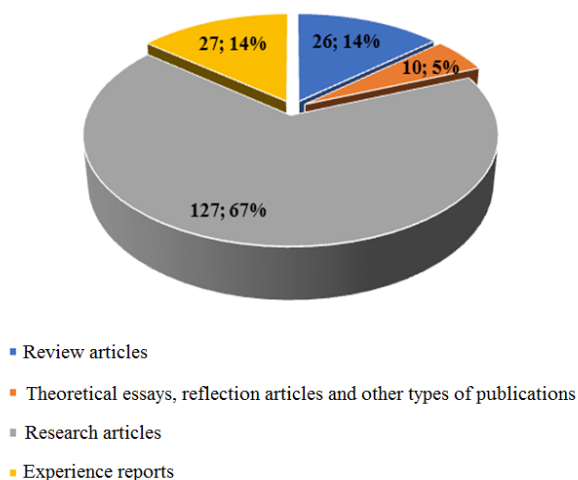


Figure 1. Categories of publications found in the international area. Source: *Scopus* and *Web of Science* (April/2018) – Authors’elaboration.

Paying more attention at the first three papers that appeared in the initial and broadest review already mentioned (Mitchell et al., 1979; Gilfoyle & Hays, 1979; Punwar & Wendt, 1980), there was an interest in the search for a better understanding of historical paths of this practice, understood today, as “SBOT”.

Mitchell et al. (1979) proposed the insertion of occupational therapists and physical therapists in public schools in North Carolina (USA), and in the management and administration teams of the Division for Exceptional Children of the State Department of Public Education. The central theme was the presentation of a model for inter-sectoral work between that division and the Occupational Therapy and Physiotherapy Divisions, both from the Department of Medical Allied Health Professions, at a Medical School not identified in the available material.

Also, based on research data conducted in 1978, Gilfoyle & Hays (1979) present what would be the roles and functions of the SBOTs at the moment, pointing out that these roles involved assessment and screening, planning and implementing intervention programs, supervision and direct assistance. According to these authors, these results would support the development of educational programs based on specific skills for occupational therapists focus on the provision of services within school systems.

Taking as a context the opening of the labor market for occupational therapists in public schools, in the USA, after the 1975 law, Punwar & Wendt (1980) argued that there was immediately a problem: the need for labor for filling these positions and qualifying to perform this type of work. The state of Wisconsin, in response to federal laws, began to foresee the need for certification for occupational therapists and physical therapists who came to work in schools. This led the Wisconsin Occupational Therapy Association (WOTA) to form a committee to discuss the implementation of certification and to advise the Department of Public Instruction in developing the parameters to be adopted – an experience they described in this article. This certification, in force since 1978, involved specific skills necessary for this professional

practice and, consequently, the recommendation on the curricular contents that the courses should consider for the development of those skills. Occupational therapists certified to work in schools should at the time be licensed in occupational therapy and complete at least nine semester credits in “special professional education” (examples mentioned by the authors: “Psychology or nature of exceptional children; Educational assessment/diagnosis of the handicapped”, p. 729).

Given the initial importance of the theme in these publications that 'sow' the studies field, 10 texts found in the category named “Theoretical essays, reflection articles and other types of publication” were listed (Table 1).

Table 1. List of publications in the category 'Theoretical essay, reflection articles and other types of the publication'.

Authorship/year	Original title	Journal	Type of article
1. Royeen (1986)	<i>Evaluation of school-based occupational therapy programs: need, strategy, and dissemination.</i>	<i>American Journal of Occupational Therapy</i>	Theoretical essay
2. Colman (1988)	<i>The evolution of occupational therapy in the public schools: the laws mandating practice</i>	<i>American Journal of Occupational Therapy</i>	Theoretical essay
3. Coutinho & Hunter (1988)	<i>Special education and occupational therapy: making the relationship work</i>	<i>American Journal of Occupational Therapy</i>	Theoretical essay
4. Sears (1988)	<i>Organizational resources for the occupational therapist in the public school</i>	<i>American Journal of Occupational Therapy</i>	Others ('informative')
5. Dunn (1988)	<i>Models of occupational therapy service provision in the school system</i>	<i>American Journal of Occupational Therapy</i>	Theoretical essay
6. Royeen & Marsh (1988)	<i>Promoting occupational therapy in the schools</i>	<i>American Journal of Occupational Therapy</i>	Reflection papers
7. Schultz (1992)	<i>School-based occupational therapy for students with behavioral disorders</i>	<i>Occupational Therapy in Health Care</i>	Theoretical essay
8. Rapport (1995)	<i>Laws that shape therapy services in educational environments</i>	<i>Physical and Occupational Therapy in Pediatrics</i>	Reflection papers
9. Brown & Gabriel (1995)	<i>Ethical perspectives on school-based practice: Care, rights, justice, and compromise</i>	<i>Occupational Therapy in Health Care</i>	Reflection papers
10. Clark et al. (2017) (para AOTA)	<i>Guidelines for occupational therapy services in early intervention and schools</i>	<i>American Journal of Occupational Therapy</i>	Others (official document)

Source: *Scopus and Web of Science* (April/2018) – Authors' elaboration.

3 Method

According to Cellard (2010, p. 295), “[...] the paper allows adding the dimension of time to the understanding of the social area”⁴. Thus, we have gathered the publications that made up the category “Theoretical essays, reflection articles, and others” (Figure 2), as well as a set of laws considered important as a documentary source for the (re) construction of the historical paths of SBOT regulation, based on the studied literature, for the entry and consolidation of USA occupational therapists working in the education sector in the country.

Therefore, after reading the set of materials in full, we carried out a descriptive synthesis of these documents, showing the results found, guided by a logic that respects the publication chronology of the materials over the years, building a history around the theme with a comprehensive socio-historical perspective. Thus, we will use the laws to establish a dialogue between them and the set of publications gathered to know the debates carried out by the authors in the particular context of that country, regarding the occupational therapists’ practice in schools and/or in the educational system (within the scope of what we call Basic Education in Brazil⁵).

4 Results and Discussion

According to Chandler (2013), the 1970s brought profound changes to occupational therapy in the USA since there was a great expansion of the area of occupational therapy in schools by a series of civilian achievements in federal legislation aimed at building equal bases for society in that country. Although occupational therapists have been working professionally in school systems since the early 1940s (Royeen, 1986), the profession is mentioned for the first time under federal laws concerned and also with the education of people with disabilities in the Rehabilitation Act of 1973 (the United States of America, 1973). This law marked the first civil rights conquest of this population in the USA (American Occupational Therapy Association, 2017). Occupational therapy is mentioned as a specialty that could compose the teams of the community rehabilitation programs, which aim to ensure that young people and students with disabilities have opportunities for post-secondary success⁶, according to section 504⁷ of the referred law (the United States of America, 1973).

The Rehabilitation Act of 1973 would create the Education for All Handicapped Children Act of 1975 - EHA (the United States of America, 1975; American Occupational Therapy Association, 2017). It is a law enacted to support states and municipalities in the protection of rights, in meeting individual needs and improving the results of babies, children and young people with disabilities and their families, ensuring quality public education (the United States Department of Education, 2015).

⁴ “[...] o documento permite acrescentar a dimensão do tempo à compreensão do social” (Cellard, 2010, p. 295).

⁵ Age 4 – 17.

⁶ In fact, in the United States it refers to the post-school period, somewhat similar to the period, in other countries, after finishing high school, in which the paths may involve insertion in the labor market or the continuation of studies in the technical or higher level.

⁷ The section which prohibits anyone from being (1) excluded from participation, (2) having denied benefits, or (3) being subject to discrimination in any state-subsidized program or activity or in any program or activity conducted by an executive agency or by the US postal service, due to their disability (United States of America, 1973).

Punwar & Wendt (1980) attribute to this law the expressive increase of occupational therapists working in schools in the USA, which in 1973 were 674 and, in 1977, went to approximately 2000 professionals.

If we observe Figure 2, a graph of the analysis of the general data of our broadest study and that included 190 works (Lopes et al., 2019), considering the different types of publication and their distribution over the years, we can see that texts aimed at the theoretical debate and/or the production of subsidies for the performance of SBOTs stand out among the first publications on the theme “occupational therapy and education”. This type of work is concentrated especially in the 1980s and 1990s, with a significant increase in 1988 (n = 5).

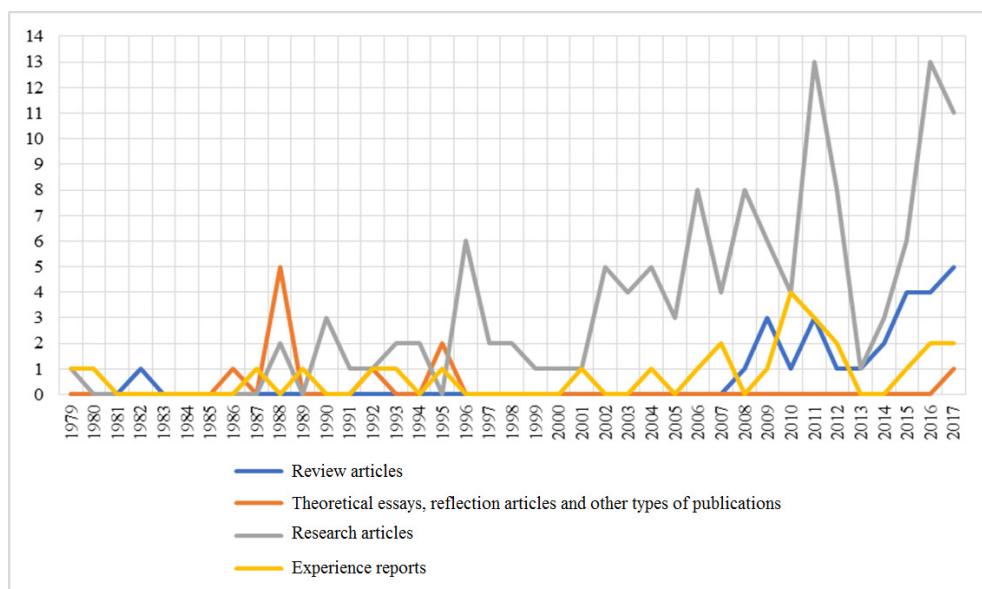


Figure 2. Distribution of publications by category and year. Source: *Scopus* and *Web of Science* (April/2018) – Authors’ elaboration.

When we observe inside the specific scientific area of the occupational therapy in school education, more precisely for publications such as “theoretical essays, reflection articles, and others”, it is clear the pioneering spirit of the USA, and the path traced in the initial 15 years of this history possibly as a response to the debate over professional regulation, with the emergence of the first laws and their subsequent changes (the United States of America, 1973, 1975, 1986), representing the achievement of civil rights for people with disabilities and who brought occupational therapists as essential professionals to support the guarantee of these people's right to education. The texts (all produced by USA authors) enabled us to know the debates and tensions in the area during that period.

The contents of the first articles in the analyzed set put the promulgation of the laws of 1973 and 1975 as a justification for professional practice.

Royeen (1986) showed that in the research carried out by Gilfoyle & Hays (1979), in which there were identified the occupational therapists’ roles in schools, the presence

of what the authors called “a medical language” was very strong to the detriment of a language more closely related to education. Added to the pressure experienced in that historical context to the reduction of public costs with special education, this fact could leave occupational therapists who worked in schools in a vulnerable position since it would be difficult for school managers to be able to appropriate this “medical” language to defend the maintenance of such professionals in a possible cut of personnel to reduce expenses. Thus, the author pointed out in this publication that two demands should converge for the evaluation of occupational therapy programs in schools: the need to adopt language more aligned to the educational context and the need to demonstrate the cost-benefit of the services of occupational therapists in schools. This statement would have a direct impact on research since it should not be clinical, but rather measure the effectiveness, efficiency, and responsiveness of programs. We can say that Royeen (1986) brought a theoretical debate about the research that would come to subsidize the practice of the SBOTs.

Colman (1988) in his article aimed to offer an overview of the evolution of occupational therapy in public schools in the USA, taking what he called “a variety of oral histories”, with the concern to consider the social, political and economic situation in the country at the time, when 10,000 occupational therapists worked in public school systems (according to a 1988 AOTA survey⁸). The author showed that the occupational therapist interacts with several other professionals focused on the provision of a more appropriate education for people with disabilities; however, each of them has their perspective on how this should happen, causing a lack of integration between the professionals with the same goals.

For Colman (1988), occupational therapists would need to appropriate their languages with the medical, rehabilitation and education models and, according to her, the changes in Federal Law 99-142 (EHA) (the United States of America, 1975), which culminated in the enactment of Federal Law 99-457 (EHA Amendments) in 1986, would provoke an intense change in the understanding of the functions of governments for the education and the function of the public school. With this change in the law, the public school should also be able to guarantee the development of the necessary skills for infants and preschool children with disabilities to be able to later benefit from the school, in addition to guaranteeing education. The 1986 law was an important reference in the area of early intervention, which, in the USA, has a strong relationship with the occupational therapy subarea⁹ in education.

Colman's text (1988) stands out not only from the other articles that have the guidelines and parameters for the work of the occupational therapist in schools as a central theme but also among all the literature we had contact in the more general research, produced in the USA, because it brings reasoning about the country's socio-political reality, locates occupational therapy in that specific context, with a discourse that places the profession in an interdisciplinary environment, in a social and historically determined place, articulating professional action with a political doing. Also, it defends the adoption of a medical, rehabilitation language, associated with education, at a time

⁸ AOTA comments on new program for handicapped infants and toddlers. *Occupational Therapy News* (AOTA, 1988, p. 9-12 apud Colman, 1988).

⁹ The term “subarea” is used to refer to the work of occupational therapy in schools; it is our academic choice, not being used by the authors of this and other publications treated here.

when the discussion about medicalization in education had not yet spread, explaining an intention to valorize the profession, once allying medical knowledge was a way for occupational therapists to value their work process; valuing in the USA context meant (and means know) adding value to the services and procedures performed by this professional.

From an educational and legal point of view, Coutinho & Hunter (1988, p. 707) discussed aspects that influence the performance of occupational therapists in schools, through special education, and about the knowledge and skills that they must have to work effectively with teachers, managers, and parents. The text is initially guided by questions such as: “How are needs for occupational therapy determined?”; “How and where are the occupational therapy services provided?”; “What rights do parents retain, and how are disagreements over [occupational therapists’] services resolved?”; “How has recent legislation affect services to infants and toddlers?”

In a second moment, the authors showed the specific skills and knowledge of the occupational therapists to work in schools: to understand what the legislation requires; to communicate efficiently and solve challenges cooperatively; to promote an individual commitment to provide services professionally and responsibly; to have the flexibility to act in a sub-area where unforeseen events are common. In this publication, the term “best practices” appears for the first time.

Also in 1988, Sears listed the organizational resources available for the occupational therapists in public schools divided in: (1) professional resources; (2) nonprofit/volunteer organizations; (3) commercial organizations; and (4) information search and retrieval systems (such as databases for research). The publication offers a description of each service available within these four categories, in which occupational therapists could use to develop their proposals in public schools.

Dunn (1988) was concerned with describing the models for providing occupational therapy services in school systems. The author recalls that, in 1980, AOTA provided training programs in all states of the USA on this theme and, in 1987, the association organized a special “task force” to review and compile the materials of this training, to collect information from specialists from all over the country and summarize the results of this research to develop guidelines for occupational therapy services in public schools, describing the specific models of SBOT: direct service, monitoring, and advice¹⁰. In this description, the author defined what each model should develop and the recent research at the time that offered subsidies and produced evidence of the effectiveness of the model. Although the models operate in different ways in the school context, all the examples brought up by the author refer to the description of individualized education programs of the student, in these cases, children. This individual program was documented and coordinated the objectives of all professionals involved with the student. Also, the author's close relationship with AOTA should be highlighted, announcing a new survey that would be published by the association with more information on the possibilities of therapeutic-occupational experiences in the education sector.

¹⁰ Dunn (1988) clarifies that the “consultation” consists of the provision of specialized advice to facilitate the work of the educational system. It is something different from what is now called collaborative consultation, due to the characteristics that we observe based on the author's definition.

Royeen published again on the theme in 1988, this time in co-authorship with Marsh, returning to the problem of the nomenclature adopted to describe the occupational therapy professional action in schools, which is still very much in line with the question of language that, in this work, the authors named it as “biophysics”. Thus, several examples are offered on how to explain what the occupational therapist does in schools, using terms that will be easily understood by educators and parents. The authors warn that the examples should not be taken as a description of what this professional's role should be in school practice, but rather as an illustration of how to “translate” the traditional concepts of occupational therapy, applying them to the specific context of school.

The examples of the traditional language of occupational therapy would be “[to] improve gross and fine motor skills” and “[to] increase school adjustment”, in which they could be translated into a more adequate language as mentioned by the authors, such as “[to] improve motor skills necessary for interaction with the environment ranging from mobility to manipulation of objects” and “[to] Increase ability to function within classroom and make adaptations necessary within the classroom to allow the child to function most efficiently and effectively” (Royeen & Marsh, 1988, p. 714). In a second moment, the authors seek to clarify the similarities and differences between the “related services” of occupational therapy and those from other subjects: adaptive physical education, perceptual motor training and optometry, physical education, physical therapy, psychology, speech pathology, and vocational education. Therefore, the universe through which the authors move themselves or the one they in fact dialogue, becomes clear.

In 1992, Schultz discusses precisely the occupational therapists, hired on a large scale by public schools, with their services limited to students whose conditions of disability are primarily physical, ignoring the psychosocial needs of the children. Thus, the author shows a model program - “model for occupational activity grouping” (p.184) -, which intended to be holistic, aimed at students with behavioral disorders, based on literature from education, psychology, and occupational therapy, taking the concept of “Occupational activity”.

Schultz (1992) related this underuse of occupational therapy services for this people to three main factors: the submission of the category to the medical model, a general confusion surrounding the role of these professionals in schools and the inadequate understanding (of special educators, managers, and the category) on how occupational therapists can contribute to the educational needs of students with “behavioral disorders”.

Another issue widely debated in the USA was the definition of the eligibility of students of special education for occupational therapy services in public schools, a task that, with the appearance of the first laws and their changes, apparently was at the mercy interpretation by governments, managers and professionals. This discussion is resumed by Rapport (1995), who opted for the path of immersion in a set of legal information, defining the established parameters (and which are continually redefined), for the provision of physical and occupational therapy in schools.

For the author, given the shortage of professionals in these areas and the growing concern with financial contributions to the education sector at the time, the need to understand the role of both of them in education became even more critical and, equally, they offer services, according to the “best practices” and the parameters established by federal and state laws. Nevertheless, the author does not seek to clarify how the need for

occupational therapy and/or physical therapy in education would be or should be defined. In another direction, the transition¹¹ appears for the first time as a concern for services related to special education in public schools. “The transition process is designed to ensure the uninterrupted provision of services from one program or agency to another” (Rapport, 1995, p. 24). The author also addresses assistive technology services, placing them as commonly provided by physical therapists and occupational therapists, but also by speech therapists in some cases.

Finally, it is interesting to mention that this author points out that the financing of special education by the federal government is limited, reporting the practice of seeking complementary alternative funds. The legislation supports the development and implementation of local, state and federal inter-agency agreements, and the possibility of accessing private funds, such as the so-called Medicaid, a type of federal health insurance for those who need financial help, or private health insurance.

Brown & Gabriel (1995) concluded this first wave of publications discussing the ethical aspects of school practice in a context in which the need for SBOTs and the reluctance to finance these services by the State are growing. The discussion takes a case extracted from the experience of the second author¹², as a motto, for which they articulate arguments based on the language and logic of what they call four theoretical frameworks: 1- the ethics of care; 2- the rights-based ethics; 3- the justice; and 4- the commitment to the preservation of integrity. When discussing the tensions experienced by occupational therapists who worked professionally in schools, the authors questioned the contours through which this practice took place and their interaction with the political and social context of that historical moment. We point out its originality compared to other articles, as the authors bring examples of real situations faced by occupational therapists and discuss them explaining their theoretical reference, taking it from a more critical approach, circumscribed in a social and political context.

In our survey, only 22 years later, in 2017, a new article was published that aimed to offer subsidies to SBOTs, by proposing guidelines for professional performance in the education sector. We can observe a correlation between the publication of this official document (American Occupational Therapy Association, 2017), after this long period, and the implementation of the new version of the Individuals with Disabilities Education Act - IDEA 2004 (The United States of America, 2004), added to the estimate made in 2015 that 25% of US occupational therapists worked in schools (American Occupational Therapy Association, 2015)¹³.

¹¹ The term refers to phases of some type of change in the life of the person with disabilities, and the occupational therapist is one of the professionals who can offer support for this change. Myers & Podvey (2013) and Orentlicher (2013) identified three phases of transition in which the occupational therapist has been worked: I) the transition of children with disabilities from early intervention and/or rehabilitation services to school; II) the transition of adolescents with disabilities from basic education to high school; III) the transition of young people with disabilities to the labor market and/or adult life.

¹² She is an occupational therapist who, at the time of the publication, she worked with schools in the state of Nebraska, where school practice was predominantly traveling from one place to another. That is, the professional traveled to schools and, at the same time, some districts hired the occupational therapist from a local hospital to work in their schools, becoming responsible for professional actions in both the hospital and school systems. In this context, longstanding problems were present for the recruitment and retention of professionals, especially for rural or other unassisted areas. Also, when the school systems were unable to fill vacancies for occupational therapists, existing professionals had to somehow try to cover this extra workload (Brown & Gabriel, 1995).

¹³ Periodically, AOTA launches a national online survey. According to data from the 2015 edition, more than 13,000 occupational therapists responded to the survey, among the 20,000 registered with the association, which identified that 25% of them were working in schools (American Occupational Therapy Association, 2015).

IDEA derives from the 1975 law, which was amended at different times; in 1997, it received this title (The United States of America, 1997) and kept modified over the years, and the most recent version is from 2004 (The United States of America, 2004). In the USA, IDEA 2004 has become the legislation that most strongly guides the work of occupational therapists at school today, and is one of the most cited laws among research articles around the theme, as we showed in Lopes et al. (2019).

On one hand, if there was a decrease in these texts as essays, debates and reflection articles, on the other hand, there was an exponential increase in the publications of research articles (Figure 2). Certainly, it also results from the contours assumed by occupational therapy academically, in which the publication of research articles becomes more relevant compared to other types of publications.

Clark, Laverdure, and Polichino published the “Guidelines for Occupational Therapy Services in Early Intervention and Schools” on behalf of AOTA (American Occupational Therapy Association, 2017). To show these guidelines, the authors developed a contextualization about aspects that influenced the field in the USA, involving the legislation and professional regulation (in which we have previously mentioned the main ones), according to Table 2, and then, professional documents such as the “Occupational Therapy Practice Framework: Domain and Process” (American Occupational Therapy Association, 2014), and contextual factors (cultural, personal, temporal and virtual¹⁴) and the environment (social and physical). It is an official document of the association that replaced the previous one from 2011 (American Occupational Therapy Association, 2011).

Table 2. List of laws and their parts that specifically influence occupational therapy services in the schools.

1.	<i>Individuals With Disabilities Education Improvement Act of 2004 (IDEA), Parts B and C</i>
2.	<i>Every Student Succeeds Act of 2015 (ESSA), a reauthorization of the Elementary and Secondary Education Act of 1965</i> <i>Section 504 of the Rehabilitation Act Amendments of 2004; Americans With Disabilities Act Amendments Act of 2008 (ADAA)</i>
3.	<i>Medicaid ([Title XIX of the] Social Security Act of 1965)</i>
4.	<i>Family Educational Rights and Privacy Act of 1974 (FERPA) and Health Insurance Portability and Accountability Act of 1996 (HIPAA)</i>
5.	<i>Improving Head Start for School Readiness Act of 2009</i>
6.	<i>Assistive Technology Act of 2004 (Tech Act)</i>
7.	<i>Healthy, Hunger-Free Kids Act of 2010</i>
8.	<i>State Education Codes and Rules</i>
9.	<i>State Part C EI</i>
10.	<i>State Practice Acts and Rules (Licensure)</i>

Source: AOTA (American Occupational Therapy Association, 2017) – Authors’ elaboration.

¹⁴ “[...] virtual context refers to interactions that occur in [...] situations absent of physical contact. [...] Clients may require access to and the ability to use technology such as cell or smartphones, computers or tablets, and videogame consoles to carry out their daily routines and occupations” (American Occupational Therapy Association, 2014, p. S9).

In this publication, the authors showed the roles of the occupational therapist who works in early intervention services and schools. According to them, the school practices involve the provision of services for groups, populations, and individuals. As an example of groups, they cite students at risk for academic and behavioral problems, and as an example of populations, they cite common classes and school district teams. Until then, in this type of publication, there was a tension around the people who would be “eligible” for occupational therapy services in schools, which here seems to be, in a way, better resolved.

The paper highlights the implementation of the Every Student Succeeds Act of 2015 (*ESSA*) a bill that updated the Elementary and Secondary Education Act of 1965. *ESSA* included occupational therapists as the “specialized instructional support staff” to ensure equal opportunities for all students, and determined that these staffs be included in state, local and school planning activities, and in certain interventions and supports for all schools (American Occupational Therapy Association, 2017). For the authors, *ESSA* and *IDEA 2004* would be the regulatory basis for the professional activities of occupational therapy in schools today, in the USA.

Also, tables are presented to describe the role of occupational therapists, according to each part of *IDEA 2004*, in which they are mentioned as related services in special education. The advice and support for school systems remain, adding professional training and development (for example, of teachers and other members of the school team) are among the roles assumed by occupational therapists in the school practice. Also, occupational therapists would act as evaluators (an activity that, in the Brazilian context, we understand as screening, for example, but also referrals, prescription of assistive technology and identification of improvements and new needs), as service coordinators for the child and the family, case manager (the last two considered exclusive roles of the occupational therapist), service provider and member of collaborative teams.

It is possible to have an understanding of how the historical path of *SBOT* regulation has been outlined in the USA, based on legislation, interests - personal and group -, as well as disputes: scientific, activist and corporate.

In the texts, there is a tension explicit by the authors in the search for the best “language” to be used in the field of education, sometimes closer to a medical-centered language, sometimes more in connection with the educating partners, parents and education managers, as follows: how to be in a “new” field - of education, but with the legitimacy and status brought from the “health” field?

It is essential to highlight the work developed by *AOTA* over all these years, seeking to normalize/homogenize an entire language, establish parameters, and to the articles that brought the theoretical debates and reflections around the performance of *SBOTs* and articles published in its main vehicle. This construction also took place in *AOTA* documents and books, being an expressive example “The best practices of occupational therapists in schools” (Clark & Chandler, 2013).

The set of these actions demonstrated how a group of American occupational therapists was visionary and competent in perceiving education as a sector that could employ a significant number of occupational therapists, elaborating a set of strategies

with a clear intention to strengthen already inserted occupational therapists as well as expanding the number of services offered by these professionals.

Among the main strategies, we highlight the offer of training courses, the production of material with a description of the work to be developed by occupational therapists - manuals, books, and publications via the American Journal of Occupational Therapy, manuals for hiring occupational therapists' services in schools, interference with state laws for contracting services, raising awareness/negotiating with education system managers. All this was done according to the reading of the articles and documents and considering the local realities, but also with extensive consultations with occupational therapists and specialists who already developed practices in schools, explaining a breathtaking work carried out by AOTA and its subsidiaries in the states.

5 Final Considerations

If we intended to be inspired by the US experience for the creation of strategies to expand the role of occupational therapists in schools in Brazil, we would have to consider three situations that highlight a particular singularity in advance:

- 1) In Brazil, similar responsibilities than those of AOTA are spread between the Brazilian Association of Occupational Therapy (ABRATO) and the COFFITO/CREFITOs¹⁵ System. Only recently (December 2018) COFFITO recognized the specialty of the activity on the agenda, called it "Occupational Therapy in the School Context", with no initiative headed and organized by this entity, of dialogue to professionals, professors and researchers in the field or, even less, with the managers of educational policies at the federal level for the insertion of occupational therapists in this sector. In the Brazilian case, the COFFITO/CREFITOs System, which has the largest financial resources, recruited from all categories, would be able to invest in the creation and preparation of materials for the dissemination of this professional activity and to boost the insertion of occupational therapists in the education sector, through negotiation with state and local managers, supporting schools' demands related or not to the field of disability;
- 2) Brazil made a political choice to universalize the public education and health system very different from the American model. In the USA, the Basic Education system is public and the health system highly privatized, which directs all scientific knowledge around the production of evidence of the occupational therapists' work for their possible hiring, whether by parents or schools, including by insurance, plans, and private health insurance. In Brazil, the number of occupational therapists who "sell" their services for health plans and insurance is still a minority; we have occupational therapists inserted in the public health network who are related to the school but do not necessarily

¹⁵ Regulating system of the physiotherapists' and occupational therapists' professional practice, composed by the Federal Council of Physiotherapy and Occupational Therapy and its Regional Councils, distributed across 18 Brazil regions.

develop work there. On the other hand, we have many occupational therapists employed in special education institutions who have had to adapt to the demands of inclusive education policies and, in recent years, we have also been assisting the hiring of occupational therapists through or to the municipal education departments. The institutional place highlights the possibilities and limits of professional insertion and the knowledge production that will result from there;

- 3) Brazilian occupational therapy has created interventional responses to the demands of the educational reality, so, if addressing the needs of people with disabilities so present in Brazil (Rocha, 2007; Pereira, 2018), we have also created actions beyond that for the educational inequalities faced in the country, remembering that there is a whole literature available based on concrete experiences that cover situations of social vulnerability with a focus on poor youth (Lopes et al., 2011; Pan & Lopes, 2020), acting in early childhood education with a focus on playing (Jurdi et al., 2004), among others.

We list these three questions to reinforce that, to read and learn from the reality of the United States, we need to be politically, historically and ethically positioned in our reality.

We are in doubt if, in spite of the numerical expansion of occupational therapists the numerical expansion of occupational therapists, their professional activities, in contemporary times, has responded to the demands of the individuals who are or should be in Brazilian schools. This remains an issue for the elaboration of other studies that, also, interest us and are pursued by us.

For Brazil, in numerical terms, albeit relative, we are far behind the USA in terms of the presence of occupational therapists in schools and/or in the education sector. If we consider that occupational therapy produces action and knowledge that contribute to this field, we need to carefully create better strategies for their professional insertion. Therefore, may the case of the USA inspire us, but let us look for organic ways to grow in this area.

References

- American Occupational Therapy Association – AOTA. (2011). Occupational Therapy Services in Early Childhood and School-Based Settings. *American Journal of Occupational Therapy*, 65, S46-S54.
- American Occupational Therapy Association – AOTA. (2014). Occupational therapy practice framework: domain and process. *The American Journal of Occupational Therapy*, 68(Suppl. 1), S1-S48.
- American Occupational Therapy Association – AOTA. (2015). *AOTA: salary & workforce survey*. Bethesda: AOTA Press.
- American Occupational Therapy Association – AOTA. (2017). Guidelines for occupational therapy services in early intervention and schools. *American Journal of Occupational Therapy*, 71(Suppl. 2), 7112410010. <https://doi.org/10.5014/ajot.2017.716S01>.

- Brown, K. H., & Gabriel, L. S. (1995). Ethical perspectives on school-based practice: care, rights, justice, and compromise. *Occupational Therapy in Health Care, 9*(2-3), 3-15.
- Cellard, A. (2010). A análise documental. In J. Poupart, J. Deslauriers, L. Groulx, A. Laperriere, R. Mayer & Á. Pires. *A pesquisa qualitativa: enfoques epistemológicos e metodológicos* (pp. 295 - 316). Petrópolis: Vozes.
- Chandler, B. E. (2013). History of occupational therapy in the schools. In G. F. Clark & B. E. Chandler. *Best practices for occupational therapy in schools* (pp. 3-14). Bethesda: AOTA Press.
- Clark, G. F., & Chandler, B. E. (2013). *Best practices for occupational therapy in schools*. Bethesda: AOTA Press.
- Colman, W. (1988). The evolution of occupational therapy in the public schools the laws mandating practice. *The American Journal of Occupational Therapy, 42*(11), 701-705.
- Conselho Federal de Fisioterapia e Terapia Ocupacional – COFFITO. (2018). Resolução nº 500, de 26 de dezembro de 2018. Reconhece e disciplina a especialidade de Terapia Ocupacional no Contexto Escolar, define as áreas de atuação e as competências do terapeuta ocupacional especialista em Contexto Escolar e dá outras providências. *Diário Oficial [da] República Federativa do Brasil*, Brasília.
- Coutinho, M. J., & Hunter, D. L. (1988). Special education and occupational therapy: making the relationship work. *The American Journal of Occupational Therapy, 42*(11), 706-712.
- Dunn, W. W. (1988). Models of occupational therapy service provision in the school system. *The American Journal of Occupational Therapy, 42*(11), 718-723.
- EPPI-Centre. (2010). *Evidence for Policy and Practice Information and Co-Ordinating Centre. EPPI-Centre methods for conducting systematic reviews*. Londres: EPPI-Centre. Recuperado em 28 de junho de 2019, de <http://docplayer.net/3592813-Eppi-centre-methods-for-conducting-systematic-reviews.html>
- Frigotto, G. (2000). O enfoque da dialética materialista histórica na pesquisa educacional. In I. Fazenda (Org.), *Metodologia da pesquisa educacional* (pp. 69-90). São Paulo: Cortez.
- Gilfoyle, E. M., & Hays, C. W. (1979). Occupational therapy roles and functions in the education of the school-based handicapped student. *The American Journal of Occupational Therapy, 33*(9), 565-576.
- Grant, M. J., & Booth, A. (2009). A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal, 26*(2), 91-108. <https://doi.org/10.1111/j.1471-1842.2009.00848.x>.
- Jurdi, A. P., Brunello, M. I. B., & Honda, M. (2004). Terapia ocupacional e propostas de intervenção na rede pública de ensino. *Revista de Terapia Ocupacional da USP, 15*(1), 26-32.
- Lopes, R. E., Borba, P. L. O., Pereira, B. P., Pan, L. C., Souza, J. R. B., & Farias, M. N. (2019). *Educação, inclusão escolar e terapia ocupacional: perspectivas e produções de terapeutas ocupacionais em relação à escola*. São Carlos: Laboratório METUIA, Departamento de Terapia Ocupacional, UFSCar. Relatório parcial de pesquisa CNPq.
- Lopes, R. E., Borba, P. L. O., Trajber, N. K. A., Silva, C. R., & Cuel, B. T. (2011). Oficinas de atividades com jovens da escola pública: tecnologias sociais entre educação e terapia ocupacional. *Interface - Comunicação, Saúde, Educação, 15*(36), 277-288. <http://dx.doi.org/10.1590/S1414-32832011000100021>.
- Mitchell, M. M., Lindsey, D., & Carlson, T. (1979). A model for establishing occupational therapy and physical therapy services in the public schools. *The American Journal of Occupational Therapy, 33*(6), 361-364.

- Myers, C. T., & Podvey, M. C. (2013). Best Practices in Transition Planning for Preschoolers. In: G. F. Clark & B. E. Chandler (Orgs.), *Best Practices for Occupational Therapy in Schools* (pp. 235-243). Estados Unidos da América: AOTA Press.
- Orentlicher, M. L. (2013). Best Practices in Transition Planning with Students. In: G. F. Clark & B. E. Chandler (Orgs.), *Best Practices for Occupational Therapy in Schools* (pp. 245-259). Estados Unidos da América: AOTA Press.
- Pan, L. C., & Lopes, R. E. (2020). Terapia ocupacional social na escola pública: uma análise da produção bibliográfica do METUIA/UFSCar. *Cadernos Brasileiros de Terapia Ocupacional*, 28(1), 207-226.
- Pereira, B. P. (2018). *Terapia Ocupacional e Educação: as proposições de terapeutas ocupacionais na e para a Escola* (Tese de doutorado). Universidade Federal de São Carlos, São Carlos.
- Punwar, A., & Wendt, E. (1980). Certification of occupational therapists in the public schools: the Wisconsin experience. *The American Journal of Occupational Therapy*, 34(11), 727-730.
- Rapport, M. J. K. (1995). Laws that shape therapy services in educational environments. *Physical & Occupational Therapy in Pediatrics*, 2(15), 5-32.
- Rocha, E. F. (2007). A Terapia Ocupacional e as ações na educação: aprofundando interfaces. *Revista de Terapia Ocupacional da Universidade de São Paulo*, 18(3), 122-127.
- Royeen, C. B. (1986). Evaluation of school-based occupational therapy programs: need, strategy, and dissemination. *The American Journal of Occupational Therapy*, 40(12), 811-813.
- Royeen, C. B., & Marsh, D. D. (1988). Promoting occupational therapy in the schools. *The American Journal of Occupational Therapy*, 42(11), 713-717.
- Schultz, S. (1992). School-based occupational therapy for students with behavioral disorders. *Occupational Therapy in Health Care*, 8(2-3), 173-196.
- Sears, C. J. (1988). Organizational resources for the occupational therapist in the public schools. *The American Journal of Occupational Therapy*, 42(11), 740-750.
- United States Department of Education. (2015). *History: twenty-five years of progress in educating children with disabilities through IDEA*. Washington: Office of Special Education Program.
- United States of America. (1973). Rehabilitation act of 1973 [Public Law 93-112, Approved September 26, 1973, 87 Stat. 355]. *The Daily Journal of the United States Government*, Whashington.
- United States of America. (1975). Public Law 94-142—November 29, 1975. To amend the Education of the Handicapped Act to provide educational assistance to all handicapped children, and for other purposes. *The Daily Journal of the United States Government*, Whashington.
- United States of America. (1986). Public Law 99-457—October 8, 1986. To amend the Education of the Handicapped Act to reauthorize the discretionary programs under that Act, to authorize an early intervention program under that Act for handicapped infants and toddlers and their families, and for other purposes. *The Daily Journal of the United States Government*, Whashington.
- United States of America. (1997). Public Law 105-17— June 4, 1997. To amend the Individuals with Disabilities Education Act, to reauthorize and make improvements to that Act, and for other purposes. *The Daily Journal of the United States Government*, Whashington.
- United States of America. (2004). Public Law 108-446—December 3, 2004 . To reauthorize the Individuals with Disabilities Education Act, and for other purposes. *The Daily Journal of the United States Government*, Whashington.

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