

Review Article

# Overview of scientific production on occupational therapy and mental health (1990-2018): a bibliometric study

## *Panorama da produção científica sobre terapia ocupacional e saúde mental (1990-2018): estudo bibliométrico*

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### Abstract

**Introduction:** The successive transformations in mental health practices and theoretical approaches in Occupational Therapy, both in Brazil and worldwide, give rise to the need of systematizing and identifying what has been produced and disseminated by occupational therapists on this topic. **Objectives:** To describe the panorama of scientific productions about Occupational Therapy and mental health, considering variables such as year, language, country, methodological approach, and object of the studies. **Method:** This exploratory and descriptive research was based on a quantitative approach, using bibliometric analysis to systematize its data. **Results:** 249 studies were analyzed that demonstrate the highest incidence of Brazilian, Australian, American, and Canadian articles, published in English and mainly from the 2000s onwards. The predominant methodological approach was qualitative, and nine categories were created to deal with the objects of the studies. **Conclusion:** The results of the mapping of Occupational Therapy scientific production in mental health enabled the identification of theoretical and practical interests and trends over time worldwide.

**Keywords:** Review, Mental Health, Occupational Therapy/Trends.

### Resumo

**Introdução:** Diante das sucessivas transformações no que se refere à assistência em saúde mental e às abordagens teóricas que ancoram as práticas não apenas no Brasil, mas no mundo inteiro, percebe-se a importância de sistematizar e identificar o que

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tem sido produzido e divulgado por terapeutas ocupacionais sobre esta temática.

**Objetivo:** Descrever o panorama do conhecimento científico sobre terapia ocupacional e saúde mental, levando em consideração as variáveis ano, idioma, país, abordagem metodológica e objeto dos estudos. **Método:** Trata-se de uma pesquisa exploratória e descritiva, de abordagem quantitativa, que se utiliza de estratégia bibliométrica para sistematizar os resultados encontrados. **Resultados:** Foram analisados 249 estudos, sendo perceptível maior incidência de artigos brasileiros, australianos, estadunidenses e canadenses, publicados em inglês e, principalmente, a partir da década de 2000. A abordagem metodológica predominante foi a qualitativa e foram construídas nove categorias que dispõem sobre os objetos dos estudos.

**Conclusão:** Os resultados do mapeamento sobre a produção científica da terapia ocupacional em saúde mental possibilitaram a identificação de interesses e tendências teóricas e práticas ao longo do tempo e a nível mundial, assim como realçaram a importância da profissão neste campo.

**Palavras-chave:** Literatura de Revisão, Saúde Mental, Terapia Ocupacional/Tendências.

## Introduction

Historically, occupational therapy and mental health have followed practical and theoretical trajectories that start in the asylum field and the psychiatric tradition, moving towards assistance in the territory and the processes of deinstitutionalization. However, in the construction of scientific knowledge in occupational therapy, only from the 1990s that worldwide investment in the search for a theoretical and scientific consistency of practices that were already perceived performed as occupational therapy practices (Magalhães, 2013). It is clarified that the search for scientific legitimacy occurs differently in different parts of the world.

The history of occupational therapy, Mental Health, and critical constructions, and human rights in Latin America tells of the same narrative and undergoes important changes, especially since the 1980s, in Brazil. The profession has always been linked to struggles and popular movements and, in Brazil, with the conquest of democracy, occupational therapists, unhappy with the profession's reductionist perspective centered on a rehabilitating paradigm, started to develop practices that direct the social transformation and assume an ethical and political commitment to these issues (Guajardo Córdoba & Galheigo, 2015).

Thus, the construction of scientific knowledge in occupational therapy, linked to the field of Mental Health, is strongly crossed by socio-political issues. In Brazil, following the Psychiatric Reform movement, actions aimed at this field assumed an expanded conception, consistent with the evolution of the concept of health, built from the perspective of territorial, intersectoral actions, under the aegis of the psychosocial paradigm. Principles such as democratization, social participation, involvement, co-responsibility, welcoming, polyphonic listening, and transversality currently direct care and attention to the psychosocial daily life and interventions within this clinic (Amarante, 2007).

Therefore, mental health care and theoretical approaches that anchor practices not only in Brazil but worldwide, have changed over time. Thus, efforts have been made to improve

theories and techniques for working in mental health services (Ribeiro & Oliveira, 2005). Also, occupational therapists who study and intervene in mental health increasingly seek to understand it as a field of activity and knowledge production, seeking to improve specific knowledge in occupational therapy within this field (Morato & Lussi, 2018).

In Brazil, with Psychosocial Care as a guide for its actions, occupational therapy uses its specificity and resignifies the concept of activity, not to control or eliminate psychological suffering, but to contribute to individual and collective emancipation, enabling new and creative ways to exist (Ribeiro & Machado, 2008).

Thus, based on the understanding that the intervention actions, theoretical references, and reflections related to occupational therapy in the field of mental health are present in the literature of the area and can contribute to the contextualization and revelation of the state of the art in this field, we consider the relevance of systematizing and identifying what has been produced and disseminated by occupational therapists in journals in the area.

Since important changes occurred in the theoretical approaches and care practices in occupational therapy and mental health in the world, the productions that aim to map and describe scientific knowledge over time have become interesting in the composition of the framework theoretical on the topic. Thus, this study aimed to describe the panorama of scientific knowledge about occupational therapy and mental health.

Productions of this nature help to understand the transformations that have taken place on the studied topic since it proposes to analyze publications prepared by different researchers, in different places, historical contexts, scientific journals, or languages. Likewise, through studies like these, it is possible to not only identify changes in professional theory and practice but also to identify global trends on the subject; the main authors and journals dedicated to producing on the topic; understand the incidence of different methodological approaches and objects of study. Thus, we can describe a contemporary research agenda based on possible scientific gaps found.

## **Method**

This is exploratory and descriptive research, with a quantitative approach and that uses a bibliometric strategy to systematize the results found. Bibliometrics emerged as a research methodology in the face of the growing need to understand and evaluate scientific production activities. Currently, studies considered bibliometric can be based on statistical procedures, laws, and specific mathematical principles, and aim to analyze and measure the quality and impact of scientific studies through these principles (Pimenta et al., 2017).

However, over time, authors who produce literature reviews that aim to map, synthesize, systematize and analyze scientific production on a specific topic - considering who produces it, where it produces it, where it publishes the study, about what it produces, among other variables - they have been identifying their studies as being of a descriptive type, with a quantitative approach, using the bibliometric strategy or the bibliometric technique to describe and systematize the data of chosen variables, without necessarily evaluating the impact of publications through principles mathematicians, as do bibliometric studies using the traditional perspective (Brilhante et al., 2016; Silva & Hayashi, 2018; Hayashi, 2013).

Thus, we used bibliometrics in a perspective similar to the study by Brilhante et al. (2016), pointing out that bibliometrics is indicated to favor prognoses about research processes and written communication of a given theme.

For data collection, we selected articles published from 1990 to 2018. The year 1990 was chosen because *Cadernos Brasileiros de Terapia Ocupacional*, an important Brazilian electronic journal, began its electronic indexing only from this year. Also, the volumes from 1990 to 2001 of USP's *Revista de Terapia Ocupacional* were not included in the searches, as they were only available in print. The year 2018 was chosen because, at the time of the research, we were still experiencing the year 2019<sup>1</sup>.

The databases in which the searches took place were VHL, Scopus, and Scielo. As the indexing of specific national occupational therapy journals on these bases is recent, the researchers chose to also search directly on the website of the following journals: *Cadernos Brasileiros de Terapia Ocupacional*, USP's *Revista de Terapia Ocupacional da*, *Revista Baiana de Terapia Ocupacional* and *Revisbrato*. As already mentioned, we selected articles published between 1990 and 2018, which are available online, on the website of these journals. Thus, the volumes from 1990 to 2001 of USP's *Revista de Terapia Ocupacional* were not included in the searches, as they were only available in print. We highlight that, differently from the indexed databases, the search systems of the websites of the journals have a fragile refinement since they do not work through Boolean operators and other codes exposed in coding manuals - as shown by the databases consulted - which implied lengthy manual analyzes.

To perform the searches, we used the following descriptors: "occupational therapy" and "mental health", their plurals, synonyms, derivations, and the Boolean operators responsible for informing the search system of the terms combined. The synonyms and derivations of "occupational therapy" and "mental health" were established in this study using the standardized vocabularies of the Virtual Health Library (Health Sciences Descriptors - DECS) and the United States National Library of Medicine (Medical Subject Headings) - MESH).

Thus, the following search expressions were developed: a) "occupational therapist" OR "occupational therapists" OR "occupational therapy" AND "mental health"; b) "occupational therapist" OR "occupational therapists" OR "occupational therapy" AND "psychiatry"; c) "occupational therapist" OR "occupational therapists" OR "occupational therapy" AND "mental illness"; d) "occupational therapist" OR "occupational therapists" OR "occupational therapy" AND "mental disorders"; e) "occupational therapist" OR "occupational therapists" OR "occupational therapy" AND "mental suffering"; f) "occupational therapist" OR "occupational therapists" OR "occupational therapy" AND autism; g) "occupational therapist" OR "occupational therapists" OR "occupational therapy" AND autistic; h) "occupational therapist" OR "occupational therapists" OR "occupational therapy" AND Asperger.

The insertion of two descriptors related to the diagnosis in the search, "autistic" and "Asperger", occurred because, in scientific productions, these terms appeared to be distanced from mental health, as representatives of a subgroup within mental health. Given

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<sup>1</sup>The completion of the methodological process of this bibliometric study took place in 2019 and its construction was the product of a subject entitled "Occupational Therapy in Mental Health and Psychosocial Care", given in the Graduate Program in Occupational Therapy at UFSCar that same year, whose objective was to study classical and contemporary theoretical references in mental health.

this, the group of researchers chose to add these diagnoses in isolation to observe the scope of these productions.

The pre-established inclusion criteria were: a) to be a scientific article; b) articles in which the two descriptors (or one of their synonyms, plurals, and derivations) of the search expression were in the title, abstract, or keywords; c) articles that presented occupational therapy and mental health as the central theme of the study; d) articles written in English, Portuguese and Spanish. Regarding the exclusion criteria, there are a) literature review articles; b) articles not available online; c) articles without the manuscript available in full for free access. The authors' focus was to outline the panorama of knowledge production available exclusively in scientific articles published in peer-reviewed journals. Thus, books and book chapters and gray literature were not contemplated.

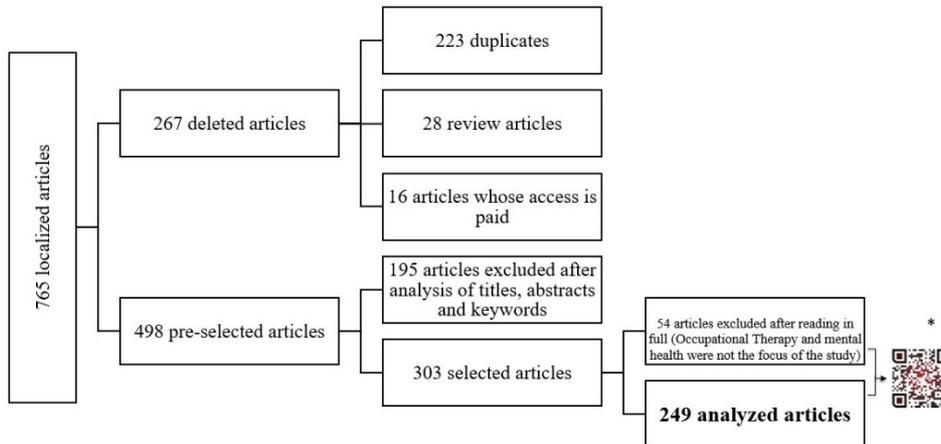
The collected data were inserted in a Microsoft Excel spreadsheet, which contained the following information or variables: database; title; authors and their affiliations; journal; year of publication; keywords; objectives; study object; type of study and approach; methodology; country of origin (the place where the study was carried out); linked services; participants; main concepts; theoretical references; main results and article link. Specifically in this article, descriptions and discussions will be made about some of the variables contained in the spreadsheet: year of publication, journals, methodological approaches, country of origin, and objects of study.

Initially, we identified 765 articles. Of these, 441 were in English, 299 were in Portuguese, and 25 in Spanish. We excluded 223 duplicate articles and 28 review articles. Even though the UFSCar Community Library switching system was used to access paid articles, some journals responded negatively to the Library's request for access. Thus, we excluded 16 articles because they were not covered by this system. At the end of this stage, a total of 498 articles remained in the study (333 in English, 143 in Portuguese, 22 in Spanish).

In the next stage, we read the abstracts of the 498 articles to select those that are dedicated to reflecting on issues related to occupational therapy and its articulation with mental health. At this stage, we excluded 195 studies, either due to the absence of the two basic descriptors (their synonyms, plurals, and derivations) in the title, abstract, or keywords or because their abstracts did not provide an understanding that there was an interlocution between occupational therapy and mental health.

In the next step, the remaining 303 articles were read in full to fill the spreadsheet with all the information from the articles. At the end of this stage, 54 articles were still excluded, which, in the analysis of the complete manuscripts, we identified that the theme of occupational therapy and mental health was not the central theme of the study. We can cite as examples the articles that bring occupational therapy only as a descriptor (articles in which the profession was not mentioned throughout the text); those in which occupational therapists are participants in the study, especially in their role in a multidisciplinary team; those who present the view of other professionals on the role of the occupational therapist; those who dedicate to the study of different pathologies and the possible repercussions on the individual's mental health; those who reflect on the performance of occupational therapy in general, without delving into the field of mental health, and those who reflect on mental health issues without being directly related to the performance of the occupational therapist.

A total of 249 articles remained in the analysis. Thus, the final number of articles were 153 (61%) published in English, 89 (36%) in Portuguese, and 7 (3%) in Spanish. **Figure 1** shows the number of productions excluded and the reasons for this exclusion:



**Figure 1.** Flowchart of the study selection process. **Source:** Elaborated by the authors, 2020. \*The QR Code allows access to information about the articles analyzed in this study and can be accessed through applications downloaded on a compatible smartphone or tablet. Just open the camera and point it at the QR code and follow the directions that the phone or tablet will provide.

## Results and Discussions

Based on the bibliometric strategy, we organized and systematized the results into topics, which represent the variables listed to be discussed in this article (year, language, and country; methodological approach and object of studies). In the end, the last topic was dedicated to specific reflections on the objects of the analyzed studies. In this session, the analyzed articles will be cited by an identification number and access to them can be obtained through the QR Code.

### Year of publication, language, and country of origin of the studies

Table 1 shows the distribution of articles based on the variables of the year of publication, language, and country of origin of the studies. The years of publication were grouped into decades, with 26 articles (10%) published between 1990 and 1999, 34 articles (14%) between 2000 and 2009, and 189 (76%) between 2010 and 2018. In the languages, there is an emphasis on the English language, with 153 studies (61%), followed by the Portuguese language, with 89 (36%), and 7 publications in the Spanish language, which corresponds to 3% of the total. In the countries where the studies were carried out, we identified 87 developed in Brazil, which represents 35% of the total. This makes the country stand out with a greater number of studies carried out on the subject.

**Table 1.** Distribution of articles by year of publication, language, and country of origin.

Decade	Quantity	Language			Country of origin	Quantity					
		English	Portuguese	Spanish							
1990-1999	26	23	2	1	Brazil	2					
					USA	11					
					Canada	2					
					Norway	1					
					N/S*	10					
2000-2009	34	18	16	0	Brazil	15					
					Australia	4					
					USA	1					
					Canada	3					
					China	2					
					India	1					
					N/S*	8					
					2010-2018	189	112	71	6	Brazil	70
										Australia	25
										USA	12
Canada	5										
Sweden	8										
South Africa	6										
England	4										
China	2										
Chile	2										
Japan	2										
Israel	2										
Others**	12										
More than one country***	10										
N/S*	27										

**Source:** Elaborated by the authors, 2020. **N/S\*:** Not Specified. **Others\*\*:** Country of origin that only one publication has been identified. They are: Argentina, Colombia, South Korea, Spain, India, Iran, Ireland, Norway, New Zealand, Poland, Puerto Rico, and Turkey. **More than one country\*\*\*:** studies that have been developed concurrently in more than one country.

In the previous table, we highlight the significant increase in studies, especially in recent years, reflecting the growth of worldwide scientific research in the area of occupational therapy (Folha et al., 2019; Hahn & Pinto, 1997). We also point out that the results of this study show that the interlocation between occupational therapy and mental health, possibly, accompanied such growth.

Regarding the predominance of articles published in English, we identified that “[...] there is a growing trend for the publication of articles in English, reflecting the efforts of scientists, educational institutions and journals from non-English speaking countries in favor of the internationalization of their scientific productions” (Cintra et al., 2020, p. 17).

Considering the highly competitive market for current scientific production and that an article can be published only once, the search for publication in English has been carried

out exhaustively, mainly for Brazilian researchers, and is in line with a general production trend scientific, which seeks to have a wider reach of its publications and it is an increasingly strict academic market (Cintra et al., 2020; Volpato, 2015).

In the construction of knowledge in occupational therapy in Brazil, we explain the involvement of Brazilian occupational therapists in the field of mental health, reinforcing the reality of their insertion and the commitment to the development of knowledge. Brazilian occupational therapists played an important role in the anti-asylum struggle, both in working with services that substitute the asylum model, as well as in helping to build public policies for mental health care. This is reflected not only in care practices but also in post-graduate training and the scientific production of these professionals (Ricci et al., 2018).

In this perspective, the literature points out that the theoretical production developed over time by Brazilian occupational therapists, about mental health care and assistance, is vast (Almeida & Trevisan, 2010; Ricci et al., 2018). We found that this finding corroborates the findings of this study.

We also point out that most of the studies are presented as the results of research of academic training, at the undergraduate or graduate level. In this sense, we emphasize that undergraduate courses in occupational therapy have greatly increased since the 1970s, and that, from that moment on, occupational therapists realized that specializations and improvements were the solutions in terms of postgraduate training, followed by master's, doctoral and post-doctoral programs in different areas, initially outside occupational therapy (Malfitano et al., 2013).

The year 1970 registered the first master's degree by an occupational therapist in Brazil. In 1981, the first doctorate was completed. So, only from the end of the 1980s that the gradual increase in the masters in the area began, and, in the 1990s, of doctors. It is important to explain that approximately 90% of the current number of masters and doctors obtained their degrees only between 2000 and 2017 (Folha, 2019).

The first postgraduate program in occupational therapy in South America was created in 2010, comprising the Physical Education, Speech Therapy, Physiotherapy, and Occupational Therapy Area, and is called the Postgraduate Program for Occupational Therapy (PPGTO) at the University Federal University of São Carlos (UFSCar). At the time, it was already pointed out that a postgraduate program has the function of producing new researchers and new knowledge, multiplying ideas, and contributing to the growth and dissemination of scientific knowledge (Malfitano et al., 2013).

Thus, we believe that the increase in Brazilian studies, over time, may be linked to the emergence of specific postgraduate training in the area, and with the greater interest of occupational therapists in carrying out it. The state investment in graduate programs in the area also offers conditions for the insertion and permanence of researchers in these programs. Such importance is because these investments can benefit the population, which benefits from occupational therapy and Mental Health practices developed through the knowledge produced during these training.

Concerning the construction of knowledge in occupational therapy on the international stage, we identified a reality different from Brazil. In international articles, the authors are not necessarily linked to graduate programs - most of the affiliation is the mental health services - and the studies report on professional practice, with dialogue and proximity between scientific dissemination and the exercise of a professional mental health

clinic. The care offered to users is renewed with reflection on professional practice and the apprehension of new knowledge built.

In the national scenario, publications are more directed towards the implementation of public policies, the structure of SUS, and the development of its actions, analyzing, mainly, programs whose target audience is collectives and not individualized services. Internationally, the literature deals mainly with interventions focused on the individual and professional practices not necessarily linked to public policies.

Table 2 shows the information related to the country of origin, the journals, and the languages in which the analyzed articles were published.

**Table 2.** Distribution of articles according to the country of origin of the studies, the language, the journals, and the year of publication.

Country of origin	n	Publication Language			Publication Year		
		English	Portuguese	Spanish	1990-1999	2000-2009	2010-2018
<b>BRAZIL</b>	<b>87</b>		86	1	<b>2</b>	<b>15</b>	<b>70</b>
Cadernos Brasileiros de Ter. Ocup.	41		40	1	1	6	34
Revista de Ter. Ocup. da USP	36		36		1	9	26
REVISBRATO	6		6				6
Ciência & Saúde Coletiva	1		1				1
Cogitare Enferm	1		1				1
Revista Baiana de Ter. Ocup.	1		1				1
Texto Contexto Enferm	1		1				1
<b>AUSTRALIA</b>	<b>29</b>	29			<b>0</b>	<b>4</b>	<b>25</b>
Australian Occupational Therapy Journal	18	18				3	15
Scandinavian Journal of Occupational Therapy	3	3					3
The American Journal of Occupational Therapy	2	2					2
Occupational Therapy International	2	2					2
Occupational Therapy Health Care	1	1				1	
Canadian Journal of Occupational Therapy	1	1					1
Psychiatric Quarterly	1	1					1
Psychiatry Res	1	1					1
<b>USA</b>	<b>24</b>	24			<b>11</b>	<b>1</b>	<b>12</b>
The American Journal of Occupational Therapy	15	15			9		6
Occupational Therapy Health Care	3	3			1	1	1
Occupational Therapy International	2	2			1		1

**Table 2.** Continued...

Country of origin	n	Publication Language			Publication Year		
		English	Portuguese	Spanish	1990-1999	2000-2009	2010-2018
J Epidemiol Community Health	1	1				1	
Hand (NY)	1	1				1	
Community Ment Health Journal	1	1				1	
Work	1	1				1	
CANADA	<b>10</b>	10		<b>2</b>	<b>3</b>	<b>5</b>	
The American Journal of Occupational Therapy	7	7		2	3	2	
Canadian Journal of Occupational Therapy	2	2				2	
Occupational Therapy International	1	1				1	
SWEDEN	<b>8</b>	8		<b>0</b>	<b>0</b>	<b>8</b>	
Scandinavian Journal of Occupational Therapy	5	5				5	
The American Journal of Occupational Therapy	1	1				1	
International Journal of Qualitative Studies on Health and Well-Being	1	1				1	
BMC Psychiatry	1	1				1	
SOUTH AFRICA	<b>6</b>	6		<b>0</b>	<b>0</b>	<b>6</b>	
South African Journal of Occupational Therapy	6	6				6	
ENGLAND	<b>4</b>	4		0	0	4	
Australian Occupational Therapy Journal	1	1				1	
Journal of Mental Health	1	1				1	
Mental Illness	1	1				1	
The American Journal of Occupational Therapy	1	1				1	
CHINA	<b>4</b>	4		<b>0</b>	<b>2</b>	<b>2</b>	
Occupational Therapy International	3	3			2	1	
Asian J Psychiatr	1	1				1	
CHILE	<b>2</b>		2	<b>0</b>	<b>0</b>	<b>2</b>	
Revista Chilena de Terapia Ocupacional	2		2			2	
JAPAN	<b>2</b>	2		<b>0</b>	<b>0</b>	<b>2</b>	
Hong Kong Journal of Occupational Therapy	2	2				2	
INDIA	<b>2</b>	2		<b>0</b>	<b>1</b>	<b>1</b>	
Indian Journal of Psychiatry	1	1			1		

**Table 2.** Continued...

Country of origin	n	Publication Language			Publication Year		
		English	Portuguese	Spanish	1990-1999	2000-2009	2010-2018
Disability, CBR and Inclusive Development	1	1				1	
ISRAEL	2	2			0	0	2
The American Journal of Occupational Therapy	1	1					1
Scandinavian Journal of Occupational Therapy	1	1					1
NORWAY	2	2			1	0	1
Scandinavian Journal of Occupational Therapy	1	1			1		
Sage Open	1	1					1
ARGENTINA	1			1	0	0	1
Revista Chilena de Terapia Ocupacional	1			1			1
COLOMBIA	1			1	0	0	1
Rev Colomb Psiquiatr	1			1			1
SOUTH KOREA	1	1			0	0	1
Occupational Therapy International	1	1					1
SPAIN	1			1	0	0	1
Cadernos Brasileiros de Terapia Ocupacional	1			1			1
IRAN	1	1			0	0	1
Japan Journal of Nursing Science	1	1					1
IRLAND	1	1			0	0	1
The American Journal of Occupational Therapy	1	1					1
NEW ZEALAND	1	1			0	0	1
BMC Psychiatry	1	1					1
POLAND	1	1			0	0	1
Postepy Rehabilitacji	1	1					1
PUERTO RICO	1	1			0	0	1
Occupational Therapy International	1	1					1
TURKEY	1	1			0	0	1
Noro Psikiyatrs	1	1					1
MORE THAN ONE COUNTRY	12	12			0	0	12
Australian Occupational Therapy Journal	3	3					3
Frontiers Robotics	1	1					1
International Journal of Speech-Language Pathology	1	1					1

**Table 2.** Continued...

Country of origin	n	Publication Language			Publication Year		
		English	Portuguese	Spanish	1990-1999	2000-2009	2010-2018
Occupational Therapy International	2	2					2
Pilot and Feasibility Studies	1	1					1
Scandinavian Journal of Occupational Therapy	2	2					2
The American Journal of Occupational Therapy	1	1					1
Work	1	1					1
N/S*	<b>45</b>	41	3	1	<b>10</b>	<b>8</b>	<b>27</b>
African Journal of Primary Health Care & Family Medicine	1	1					1
Australian Occupational Therapy Journal	4	4					4
Cadernos Brasileiros de Terapia Ocupacional	2		2		1		1
Health and Quality of Life Outcomes	1	1					1
Hong Kong Journal of Occupational Therapy	2	2					2
Indian Journal of Psychiatry	1	1					1
Int J Environ Res Public Health	1	1					1
Irian Rehabilitation Journal	1	1					1
Journal of Dual Diagnosis	1	1					1
Occupational Therapy International	4	4			2	1	1
Psychiatric Rehabilitation Journal	1	1				1	
Psychology & Neuroscience	1	1					1
Revista Chilena de Terapia Ocupacional	1			1			1
Revista de TO da USP	1		1			1	
Scandinavian Journal of Occupational Therapy	2	2					2
The American Journal of Occupational Therapy	19	19			7	5	7
Work	2	2					0

**Source:** Elaborated by the authors, 2020. N/S\*: Not Specified.

The analyzed articles were published in the most varied journals, with emphasis on two of them, The American Journal of Occupational Therapy, with 48 articles (19%), and Cadernos de Terapia Ocupacional at the Federal University of São Carlos (UFSCar), currently entitled Cadernos Brasileiros de Terapia Ocupacional, with 44 articles (18%). Together, they published 37% of the total articles analyzed.

The literature points out that, from the 1980s, due to the diffusion of journals considered relevant, such as the Canadian Journal of Occupational Therapy and the American Journal of Occupational Therapy, important worldwide discussions about the legitimation of knowledge in occupational therapy emerged (Mângia, 1999). Also, the studies identified were carried out in 23 different countries, which exposes worldwide interest in the subject. However, the results of this research show that only 8 countries published 4 or more articles, showing the dispersion of data on this issue. In this case, we indicate the development of other review researches that seek to analyze the gray books, theses, dissertations, and literature of the same period to understand how much these data may or may not be generalized.

Regarding Brazil, the country that most published articles on the subject (87 articles), we observed that the increase in publications happened since the 2000s. We identified that these data can be explained when considering the important advances in the dissemination of the knowledge of occupational therapy in the Brazilian context, starting in the 1990s, such as the creation of national scientific journals, the strengthening of national scientific events, and the creation of research groups (Folha, 2019; Lopes et al., 2016). Specifically, regarding UFSCar's *Cadernos de Terapia Ocupacional*, the indexing of the journal only occurred in 2012, accompanied by major changes in the best academic qualification. These changes have had an impact on the increase in the number of texts published in the journal (Lopes et al., 2016).

On publications in specific national journals in the area, studies by Folha (2019) and Folha et al. (2017) pointed out that more than half of the publications by occupational therapists affiliated with Brazilian institutions were published in journals that are not specific to the area. However, the reality of these studies differs substantially from the results of this research, since the results identified that only 3 articles written by Brazilian occupational therapists were published in non-specific journals, in the universe of 89 articles published in Portuguese. They are: *Texto Contexto Enfermagem*; *Cogitare Enfermagem*; and *Ciência e Saúde Coletiva*. Only 1 article was published by a Brazilian occupational therapist in an international, but specific journal, *Occupational Therapy International*.

The different findings of this study from the results of those previously mentioned are very important, demonstrating the need for further investigations. This importance is justified when we realize that Brazilian occupational therapists who research specifically in Mental Health have been strongly dedicated to publishing their productions in specific journals in the area. Thus, it is possible to infer that this group of occupational therapists has been focusing on the construction of scientific knowledge and practices in Mental Health, specifically in interface with occupational therapy.

Even though it is interesting that the studies are published in specific journals, thinking about the construction of scientific knowledge in the area, publications in journals in related areas are no less important.

The publication of occupational therapy in journals in related areas is essential for the dissemination of knowledge produced by the profession, given that occupational therapy is an interdisciplinary profession, making dialogue with other fields of knowledge essential (Folha et al., 2019, p. 660).

However, despite the importance of publishing manuscripts in journals in related fields, we would like to mention that, for specific journals in the area to be strengthened and

improve their academic qualification, occupational therapists must make efforts. Greater investment by these researchers in producing knowledge in occupational therapy and in disseminating them through specific journals could contribute to greater recognition of occupational therapy as an area. This recognition could help to support the idea that there are knowledge and practices that are specific to this profession, although they are linked to several fields, such as Mental Health, for example.

### Methodological approach of the studies

Regarding the methodological methods and procedures of the studies analyzed, we identified that, when developing scientific research, the main methodological approaches used are qualitative and quantitative (Minayo, 2014). However, there is the possibility of the junction between the two approaches, producing research considered mixed (Sampieri et al., 2006). Of the 249 articles analyzed, 89 (36%) have a qualitative approach, 28 (11%) have a quantitative approach and 25 (10%) have a mixed approach. We emphasize that 107 (43%) studies do not define, at any point in the manuscript, the approach of the research. More detailed information on the methodological approach can be seen in **Table 3**, below.

**Table 3.** Distribution of articles according to the informed methodological approach, language, and year of publication.

Methodological Approach	Quantity	Language			Publication Year		
		English	Portuguese	Spanish	1990-1999	2000-2009	2010-2018
Qualitative	89	41	44	4	7	11	71
Quantitative	28	21	7	0	1	2	25
Mixed	25	21	4	0	0	1	24
Not Specified	107	70	34	3	18	20	69

**Source:** Elaborated by the authors, 2020.

The results show that most of the studies used a qualitative methodological approach. Thinking about health and producing knowledge in the face of mental health care meets the need to understand the subject in its uniqueness, in its space and offal, issues that are, most of the time, in line with a qualitative methodological approach, which investigates subjective and interpretive processes (Minayo, 2006, 2014).

We understand that the fact that most studies in occupational therapy and mental health use the qualitative approach may be linked to the idea that such an approach allows a greater deepening of the social phenomena or objects studied (Minayo, 2014). The use of qualitative methodologies and data collections, centered on the opinion of the research participants and the observation of their reality, may be more appropriate in research on mental health (Souza & Lussi, 2020).

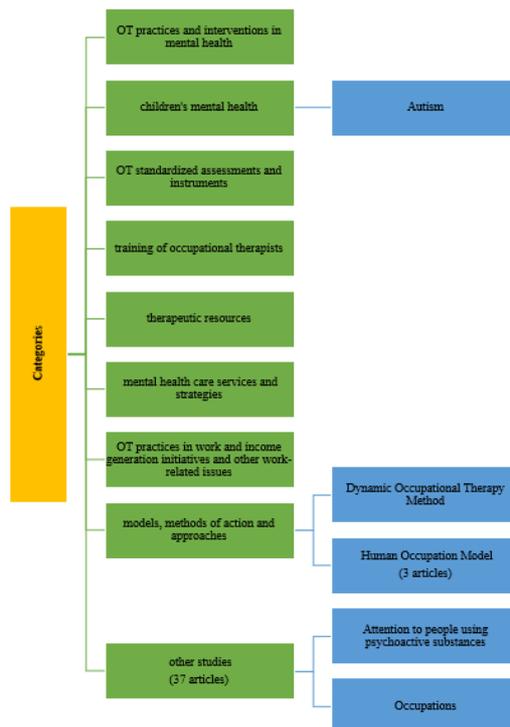
While understanding that all approaches are fundamental to the construction of knowledge, we emphasize that the qualitative approach allows “[...] taking into account the deepest levels of social relationships” (Minayo, 2006, p. 23), something crucial for understanding mental health field.

According to Minayo (2014, p. 57), “[...], qualitative approaches are better suited to investigations of delimited and focused groups and segments, of social stories from the perspective of the actors [...]”. It is also important to note that there is no room for comparison between qualitative and quantitative approaches since each of them has its place, its adequacy, and an important role in research (Minayo, 2014).

Also, when identifying that 43% of the studies did not declare their methodological approach, there is a limit to the research. The choice for not designating the approach of the studies in our tables without this being explicitly stated in the original text was given due to the authors' concern to reduce biases of the research, performing a scientific panorama in a more reliable way how the researches were written.

### Objects of study

The researchers analyzed and categorized the objects of study of the analyzed articles after reading them in full and obtaining consensus in the listed categories and the distribution of the studies among them. Nine categories were identified (from “a” to “i”), which can be seen in **Figure 2**, below. All articles and categories in which they were included can be accessed through the QR Code provided in **Figure 1**.



**Figure 2.** Flowchart of the categorization of the objects of study. **Source:** Elaborated by the authors, 2020.

- a) **Occupational therapy, mental health practices, and interventions:** In this category, we included 53 articles, which discuss the different occupational therapy interventions in

mental health, either in the individual performance of the occupational therapist or through his performance as a member of a multi/interprofessional team (see with the QR Code, articles 1 to 53). In general, they are studies that discuss: the clinical reasoning of the occupational therapist; their insertion in reception spaces; exchange and listening processes; their performance and the care strategies provided in specialized mental health care services and the specificities of their performance in the area; early intervention in mental health; therapeutic follow-up using the occupational therapy approach in acute cases, after hospital discharge, given gender issues, the inclusion of people with psychological distress and the care provided to their families. In this category, 6 studies that are specifically dedicated to the theme of the abusive use of alcohol and other drugs address the daily lives and perspectives of these subjects and the practices of occupational therapists in the Centers for Psychosocial Care for Alcohol and Drugs - CAPSad (see with the QR Code, articles number: 54 to 59).

- b) **Occupational therapy and children's mental health:** we analyzed 11 articles on issues related to the psychological distress of children and adolescents and the performance of occupational therapy (see with the QR Code, articles number: 60 to 70). They are studies on: the mental health care network for children and adolescents; occupational performance of users of Children's Psychosocial Care Centers (CAPSi); parental educational practices used in the daily life of this population; practice centered on family and children's mental health; and the first outbreak and hospitalizations, whether short or long term. We included 33 articles that exclusively address Autism Spectrum Disorder (ASD) in childhood and/or adolescence, although much more related to childhood than to adolescence (see with the QR Code, the articles number: 71 to 103). In general, they are studies that: address the theoretical frameworks and interventions that contribute to the performance of the occupational therapist at the ASD; standards and practices of these professionals in the area; covering teachers and family members of children and adolescents with ASD; that deal with the relationship between autism and sensory processing; that propose strategies to improve selective eating behavior, communication, routine, engagement and social participation of children with ASD; which expose the importance of auditory stimulation, sensory integration, use of yoga, coaching program based on the occupation for families, handling children with ASD in family transportation and early identification of ASD by the occupational therapist.
- c) **Occupational therapy, standardized assessments, and instruments:** Of the analyzed publications, 16 articles discussed evaluation in occupational therapy, as well as some standardized instruments used in the context of mental health (see with the QR Code, articles number: 104 to 119). Specifically in the evaluation, they are studies that discuss the different strategies used by occupational therapists, both inside and outside the mental health care services, evaluation of instrumental activities of daily living, evaluation system of people with mental illness, assessment system for children with autism, ADHD and typical development, in addition to assessing people with psychological distress associated with cognitive disabilities. For example: instruments built by the professionals during their practice; evaluation in other contexts, such as a home; evaluation carried out by a team through host groups, among others. Regarding standardized instruments, they are articles that are dedicated, for example, to the development and validation of instruments, cross-cultural translation, use of specific

protocols for people with depression and anxiety, use of software that helps students of occupational therapy in the development of the clinical reasoning, evaluation of the psychometric properties of a specific instrument for use with people with mental health problems, use of a clinical model in mental health - COPEs. Examples of such instruments are: Kohlman Evaluation of Living Skills (see with the QR Code, article 107), VALPAR Pro3000 (see with the QR Code, article 109), 13-Item Satisfaction with Daily Occupations Scale (see, with the QR Code, article 115), Occupational Circumstances Interview and Rating Scale - Sweden (OCAIRS-S V2) (see with the QR Code, article 119), among others.

- d) **Training of occupational therapists and the field of mental health:** we selected 16 articles related to the training of occupational therapists focused on performance in mental health (see with the QR Code, articles number: 120 to 135). They address the perspectives and expectations of occupational therapy students about their performance in mental health, the teaching-learning process in the field of mental health, curriculum, and training in mental health. Some reports of practical experiences related to internships in the area, teaching occupational therapy in the context of chemical dependency, suicide, and the influence of internships in mental health on the later practices of students in occupational therapy.
- e) **Occupational therapy and therapeutic resources:** Among the studies, 17 articles present reports of the most varied therapeutic resources used in occupational therapy interventions in the field of mental health (see with the QR Code, articles number: 136 to 152). Some examples are: group activities/interventions, workshops, spontaneous daily theater, use of art and creative activities, whether in the form of music, theater, cinema, DIY, cooking and crafts, as well as sensory rooms as resources.
- f) **Occupational therapy, services, and strategies for mental health care:** we analyzed 20 studies that specifically discuss specialized services in mental health care and describe the contexts of care adopted by occupational therapists (see with the QR Code, the number articles: 153 to 172). In general, they analyze the mental health network and the structure of services for mental health, psychiatric consultation, mental health care in primary health care, and the assistance offered in: day hospital, day center, community center, psychiatric hospital, performance in therapeutic residences, in custody hospitals.
- g) **Occupational therapy and work:** we identified 12 studies that discuss issues related to work and income generation of people with psychological distress and the intervention of occupational therapy (see with the QR Code, articles number: 173 to 184). They explore the potential and difficulties of initiatives and/or workgroups and income generation, the relationship of occupational therapy with these initiatives and their practices, in addition to the professional performance of people with psychological distress, the return to work, and professional training programs for these individuals.
- h) **Occupational therapy, models, methods of action, and approaches:** It appears that 13 studies discuss some models, methods of action, and approaches used by occupational therapists in the field of mental health. The intention here is not to differentiate the model, method of action, and approach, but rather to exemplify the studies dealing with these issues (see with the QR Code, articles number: 185 to 197). Some examples are: multimodal intervention, Canadian Performance Measure, Assertive Community

Treatment, Client-Centered Practice, Kawa Model, Flow Theory, Evidence-Based Practice, in addition to occupational therapy models for the various quality of life perspectives and mental health intervention model and inter/transdisciplinary models. In this category, 4 studies are specifically anchored in the Dynamic Occupational Therapy Method (DOTM) and address: the triadic relationship; the application of DOTM in a case; psychodynamic approach in occupational therapy in mental health; and the supervision of students in the light of the DOTM (see with the QR Code, articles number: 198 to 201). Also, 3 studies are based on the Model Human Occupation (MOHO) and discuss: the perception of occupational therapists on the practical relevance of the Model of Human Occupation (MOHO); the engagement of people with schizophrenia based on the MOHO; and the impact of MOHO on the patient (see with the QR Code, articles number: 202 to 204).

- i) **Other studies:** We also identified 37 studies whose uniqueness makes categorization difficult, grouped in this category (see with the QR Code, articles number: 205 to 241). Some examples are: reflections on stigma; recovery; resilience of occupational therapists; a dialogue between psychosocial rehabilitation and occupational therapy; use of work as a therapeutic resource throughout history; a dialogue between the propositions of Occupational Therapy centered on the patient and authors of the Italian deinstitutionalization; theoretical reflection on the concept of justice and its interface with occupational therapy; women in psychological distress in a context of poverty; lifestyle behaviors that can bring a low-cost option for the treatment of panic disorder; participation in a community soccer group and the benefits to its members; the role of an occupational therapist with immigrants; culture in mental health contexts; cooperation between traditional healers and occupational therapists; occupational therapy in forensic practice in Canada; possibility of occupational therapy intervention with astronauts, among others. In this category, 8 studies were identified that reflect specifically on occupations: participation in significant occupations; the value of occupation as an intervention objective; the occupational needs of people with psychological distress, and the occupational difficulties generated by psychological distress. Some studies address the therapeutic use of occupation to empower people in the field of mental health (see with the QR Code, articles number: 242 to 249).

Due to the results presented, we can identify a growth, in the last decades, of productions on occupational therapy and mental health, demonstrating an attempt to strengthen this field through academic and scientific publication.

We can also extract, through the identification of reflexive changes that occur over the years, that it is a living subject dealing with human beings, and, therefore, subject to new practical-theoretical possibilities. As an example of this dynamism, reflections in the field of mental health in childhood and adolescence stand out, which have been detaching from what is recommended for adults, including reflecting on differentiations of this great “childhood-adolescence” complex (Fernandes et al., 2020); the use of activity, which is permeated by cultural crossings, and nourished by socio-political issues, representing possibilities of emancipation, citizenship and participation (Ribeiro & Machado, 2008); and the issues of alcohol and other drugs and work, which are heavily influenced by political issues.

## **Final Considerations**

We consider that the study responded to the proposed objectives, describing the panorama of scientific knowledge about occupational therapy and mental health in a window of scientific productions of 28 years. In this way, this study contributes to the identification of studies carried out in the area, showing the advances over time.

In addition, the results presented here help to understand and improve actions in the field of occupational therapy, and indicate the relevance of the profession in the different nuances of the field.

Among the findings, we highlight the high incidence of articles published in English, highlighting the diversity of countries that use this language for publications, with emphasis on the United States, Australia, and Canada. We also highlight the significant Brazilian production. The results showed a significant increase in scientific publications, especially after the 2000s, and the high number of productions that use the qualitative approach.

With the elaboration of this survey and the construction of categories of the objects of studies, it was possible to help the detailing and understanding of the construction of knowledge in occupational therapy and mental health in Brazil and the World. This production, until today, is English-speaking, due to the origin of the profession, told through official history. Through this reflection, we could see publications by authors who have different professional affiliations and who carry out important research and professional practices in different parts of the world. In addition, this study enabled the identification of research interests and trends in the profession.

The objective of this study was not to deepen each category of study objects. However, with this photograph of the path taken by the theoretical production of occupational therapy, it was possible to assist in understanding and improving the actions of the core of occupational therapy, as indicated by the relevance of the profession in the different nuances of the field.

As a limitation of this survey, we emphasize that gray literature was not included. We also suggest that future studies be carried out to monitor the productions and trends in the area of occupational therapy and mental health, in addition to mapping in other fields of occupational therapy, to identify in which journals the researchers have been publishing their studies. We observed that most of the studies on mental health were published in specific journals and other studies demonstrated a different reality, pointing to many publications by occupational therapists in journals in related areas.

Regarding the scientific gaps, we point to the scarcity of participatory studies (by participatory is understood those studies that investigate the experiences “with” patients of mental health services and not “about” them). The results of this review point to a greater permanence of studies that focus on diagnoses and interventions without, many times, understanding, first, the singular realities and experiences of the individuals and collectives. Thus, although the development of studies in the most varied theoretical perspectives is important to enhance the discussions on the theme, we noticed that the scientific literature, especially the international one, lacks research that has as the theoretical direction the recognition of the protagonism of marginalized groups, limited daily lives, in addition to valuing skills. We believe that to consider issues like these is to be in line with respect for subjectivities and diversities.

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### Author's Contributions

Conception and development of all stages of research (planning and conception; search, organization, and review of sources; organization and review of data; organization and review of results; writing of the text): Bárbara de Fátima Depole, Danieli Amanda Gasparini, Erika Regina de Oliveira Colato, Laysla Demonari Gomes, Lisabelle Manente Mazaro, Marina Batista Chaves Azevedo de Souza and Thaís Thaler Souza. Conception and planning of the research, guidance of all stages and critical review of the text: Isabela Aparecida de Oliveira Lussi and Thelma Simões Matsukura. All authors approved the final version of the text.

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