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# Characterization of the national periodical publications integrating speech language and hearing sciences with psychology: a longitudinal survey

Caracterização das publicações periódicas nacionais integrando fonoaudiologia e psicologia: estudo longitudinal

Caracterización publicaciones periódicas nacionales que integran la terapia del habla com la psicologia: estudio longitudinal

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## **Abstract**

*This article characterizes the national periodical publications in Speech Language and Hearing Sciences which integrate with the Psychology. Longitudinal survey was conducted between the years 2004 to 2014 in all electronic journals of the Speech Language and Hearing Sciences. 2724 productions were evaluated, of which 153 (5,6%) studies correlate the two areas, especially original articles in the*

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**Authors' contributions:** ENN guidance in all stages of development of the study. FRS participated in the data collection, analysis and discussion of the data, writing the method and translation of the study. DMO participated in the data collection, analysis and discussion of the data. SAO; NNS; LAC and JSC participated in the data collection, analysis and discussion of the data.

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**Received:** 20/04/2016

**Accepted:** 11/07/2016





specialties of Language and Voice. The largest production occurred in 2010, with a tendency to decrease in this production. Thus, movements are required to resume the publication of studies with interface between Speech Language and Hearing Sciences and Psychology in order to subsidize the professionals in action with the mental health public policies.

**Keywords:** Speech, Language and Hearing Sciences; Acting Out; Communication; Language

## Resumo

*Este artigo caracteriza as publicações periódicas nacionais que integram a Fonoaudiologia com a Psicologia. Foi realizado levantamento longitudinal entre os anos de 2004 a 2014 em todos os periódicos eletrônicos da Fonoaudiologia. Foram avaliadas 2724 produções, sendo que 153 (5,6%) trabalhos correlacionam as duas áreas, especialmente artigos originais nas especialidades de Linguagem e Voz. A maior produção aconteceu em 2010, havendo uma tendência ao decréscimo nessa produção. Assim, são necessários movimentos que retomem a publicação de trabalhos com a interface entre a Fonoaudiologia e a Psicologia a fim de subsidiar os profissionais na atuação junto às políticas públicas de saúde mental.*

**Palavras-chave:** Fonoaudiologia; Atuação (Psicologia); Comunicação; Linguagem.

## Resumen

*Este artículo características publicaciones periódicas nacionales que integran la terapia del habla con la psicología. Se llevó a cabo la encuesta longitudinal de los años 2004-2014 en todas las revistas electrónicas de la terapia del habla. Se evaluaron 2724 producciones, y 153 (5,6%) de trabajo relaciona las dos áreas, especialmente artículos originales sobre todo en las especialidades de lenguaje y la voz. La producción más grande ocurrió en 2010, con una tendencia a disminuir en esta producción. También lo son los movimientos necesarios reanudar la publicación de trabajos con la interfaz entre la terapia del habla y la psicología con el fin de apoyar a los profesionales en acción con las políticas públicas de salud mental.*

**Palabras claves:** Fonoaudiología; Atuação (Psicología); Comunicación; Lenguaje.

## Introduction

The care in mental health in the Brazilian scene has undergone important changes in recent decades and fostered the creation of public policies for integral care of persons suffering from mental disorders. The psychiatric reform and the deinstitutionalization process handled users, family members, professionals, community and public authorities in community and social reinsertion of those people<sup>1</sup>.

The psychiatric reform advocates the extinction of asylums and transformation of the psychiatric care network, leading to legislative and administrative changes, especially in society relations with the person considered different. Thus, this reform values the right to expression, voice and listening, building new practices and knowledge about the mental suffering<sup>2</sup>.

The Law no. 10.216/2001<sup>3</sup> emphasizes the right to protection of persons with mental disorders and causes the technical restructuring and policy of mental health services in Brazil, which was concentrated exclusively in asylums. This new scenario has allowed the reduction of psychiatric beds and the organization of services in line with the community<sup>4</sup>.

The new model of care was regulated by Decree n°. 336/2012<sup>5</sup> that prioritizes open spaces such as the Psychosocial Care Centers (CAPSs). In this legislation the speech language pathologist and audiologist is forecast reportedly in CAPS for children and young people, being understood their participation in other types of CAPS in “other” professionals of higher level.

There is a close relationship between mental disorders and speech language and hearing pathologies. Changes may be identified in the language, orofacial motricity, voice and hearing, as well as





the presence of dementia and impairments in spatial and temporal directions. In addition, the speech language pathologist and audiologist can strengthen the interactive activities of communication and allow the formation of personal and social ties<sup>6</sup>.

The Regional Council of Speech Language and Hearing Sciences corroborates with this information and presents the possibilities of intervention by speech language pathologist and audiologist in the context of mental health, working with children and adolescents, together with family and in the different institutional settings strengthening, thus, the network of health and education services<sup>7</sup>.

In the 1970s and 1980s the Speech Language and Hearing Sciences offered rear mental health. However, it was a performance centered on a model exclusively of assistance to adults and children with mental disorders. Gradually this reality was giving space for a more communitarian and territorial attention, thus, allowing glances to the family relations, social and cultural rights of subjects involved. This expansion of care has mobilized the professional speech language pathologist and audiologist to make a shared, collective and multidisciplinary, besides causing reflections about the work in a network of psychosocial attention<sup>8</sup>.

Even with the changes in the mental health public policies are still identified difficulties in the working process of the speech language pathologist and audiologist in psychosocial care services, in other words, the care is still predominantly focused on the pathologies and therapeutic processes. In this sense, Arce<sup>9</sup> intervened in the performance of this professional in a CAPS for children and young people of Brasília-DF and realized that there was a change in the logic of care. The professionals started to act in an interdisciplinary and collective way, integrated into the territory of the patient and family, as well as involving other sectors. Thus, it concluded that there could be a failure in the formation of the speech language pathologist and audiologist, giving priority to the pervasive developmental disorders instead of psychosocial care.

The gaps in the formation of the speech language pathologist and audiologist in relation to psychological processes have also been identified by other authors who analyzed the curricula of speech language and hearing sciences courses and questioned professors about the presence of psychoanalyst content/practices on curricular

structure, noting that there are still few studies that demonstrate this interface<sup>10</sup>.

The field of mental health in the speech language and hearing sciences is relatively new and requires the exercise of the practice and the appropriation of scientific knowledge in speech language hearing and psychological area. However, some questions are raised in relation to the Brazilian scene: are there in the national literature publications that integrate the Speech Language and Hearing Sciences with Psychology? How did this production occur in recent years? What types of articles were published? What areas of the Speech Language and Hearing Sciences contemplated psychological aspects?

Thus, the aim of this study was to answer these questions, identifying the national scientific productions in a period of ten years, as well as to check the types of studies performed and the areas that have incorporated the Speech Language and Hearing Sciences with the Psychology.

## Methods

This is a theoretical, longitudinal and retrospective study because it performs research through the time, from records of the past<sup>11</sup>. A similar study was done when the periodical publications were characterized in Speech Language and Hearing Sciences, and Neurosciences<sup>12</sup>.

2.724 electronic complete articles indexed in Scientific Electronic Library (SCIELO) or available directly from the electronic portal of the Journal were evaluated. At the time of the investigation, seven national journals were available electronically: CODAS, CEFAC, Distúrbios da Comunicação, Revista da Sociedade Brasileira de Fonoaudiologia, Audiology Communication Research, Pró-Fono- Revista de Atualização Científica e Jornal da Sociedade Brasileira de Fonoaudiologia. It is noteworthy that two journals had their titles changed. In 2001 the Pró-Fono-Revista de Atualização Científica changed to Jornal da Sociedade Brasileira de Fonoaudiologia and, in 2013, to Revista CODAS. Similarly, in 2013 the Revista da Sociedade Brasileira de Fonoaudiologia came to be called Audiology Communication Research. Even with the changes all the journals were participants in this study.

For the longitudinal and retrospective study, a period of 10 years was considered, between the



years of 2004 to 2014. This period was stipulated because there were no electronic publications accessible before 2004 and the next publications of the year 2014 had not been finalized at the time of collection.

During the survey the analysis of the study's title, the abstract and article's content was conducted. We sought to verify the presence of psychological information integrated into the speech language and hearing sciences. This assessment was performed by six students from a course of speech language and hearing sciences at a Public University of the State of São Paulo who completed the course

“Constitution of the Subject Psycholinguistic”, 60 hours/class which approached psychic aspects associated with linguistics. Each article was evaluated by peers in order to achieve greater reliability in the classification that was performed.

In order to systematize the information the “Protocol for the Classifications of Article” was prepared based on another study<sup>12</sup>. It is noteworthy that in the drafting of this instrument only the specialties recognized by the Federal Council of Speech Language and Hearing Sciences were considered.

<b>Article's Title:</b>		
<b>Periodic:</b>		
<b>Year:</b>		
Specialty:	Audiology	
	Dysphagia	
	Gerontology	
	Speech Language and Hearing Educational Sciences	
	Speech Language and Hearing Neurofunctional Sciences	
	Speech Language and Hearing Occupational Sciences	
	Neuropsychology	
	Language	
	Orofacial Motricity	
	Voice	
	Public Health	
Articles's Type	Original Article	
	Review Article	
	Case Study	
	Other: Specify	

**Figure 1.** Protocol for the classifications of article

After an evaluation of the articles, a quantitative and qualitative analysis of the information was performed. The literature suggests the implementation of these two approaches to better understand the reality studied<sup>13</sup>.

The periodicals analyzed were identified by letters (A, B, C, D, E, F, G) In random order (raffle) to preserve the anonymity. The randomization ensures that a sample is not biased nature<sup>14</sup>. Chart and Graphics were developed for better visualization of the final data.

## Results

Among the 2724 productions published in electronic national periodicals of speech language and hearing sciences, in the interval of ten years, 153 (5,6%) were related to psychological aspects.

There was a predominance for the journal A which produced a larger number of articles (13,9%) integrating the speech language and hearing sciences with psychology, as well as E who has not published any work linking the two areas.

**Table 1.** Published Articles in the analyzed journals

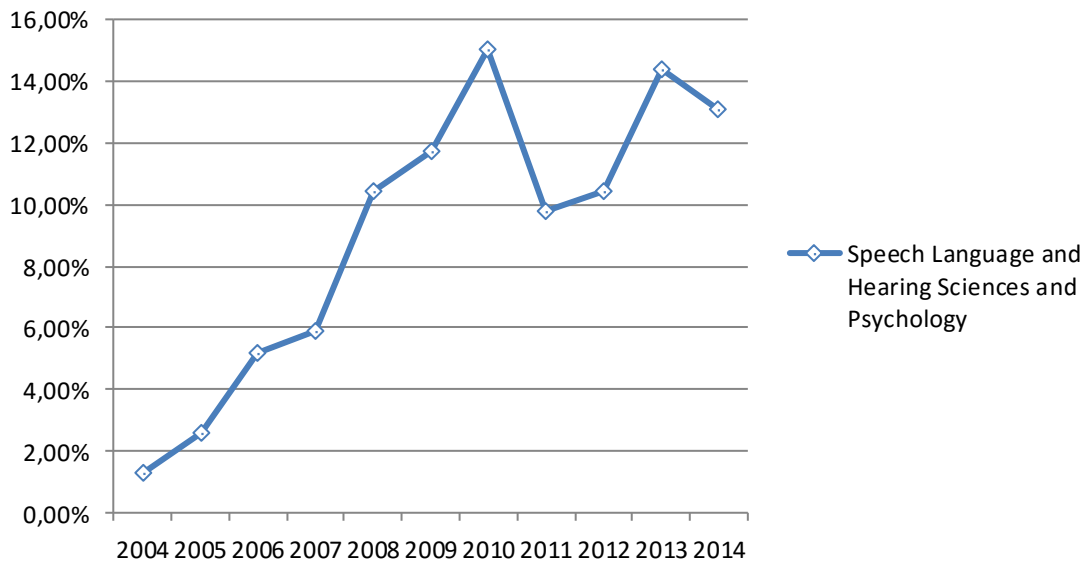
Journal	Absolute number of articles investigated	Absolute number of articles related to Psychology	Relative number of articles related to Psychology
A	108	15	13,9%
B	1030	28	2,7%
C	150	12	8,0%
D	490	11	2,2%
E	130	0	0,0%
F	296	33	11,1%
G	520	54	10,4%
TOTAL	2724	153	5,6%

Regarding the year of publication of the articles there was a continuous growth until the year 2010, which was the culmination of the publications, as shown in the Graphic 01. From that landmark they fell, growing again between the years 2011 and 2012, returning to decrease in 2014.

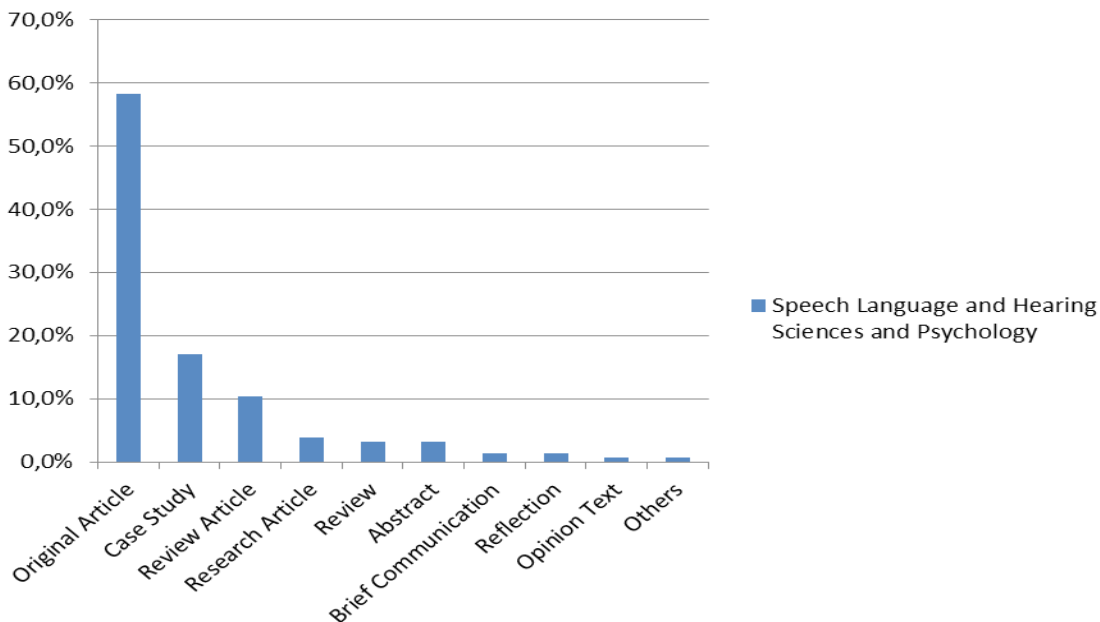
According to the research, the most published

productions were original articles and case studies, in accordance with the Graphic 2. The brief communications, reflections and opinion pieces are still reduced in the time interval studied.

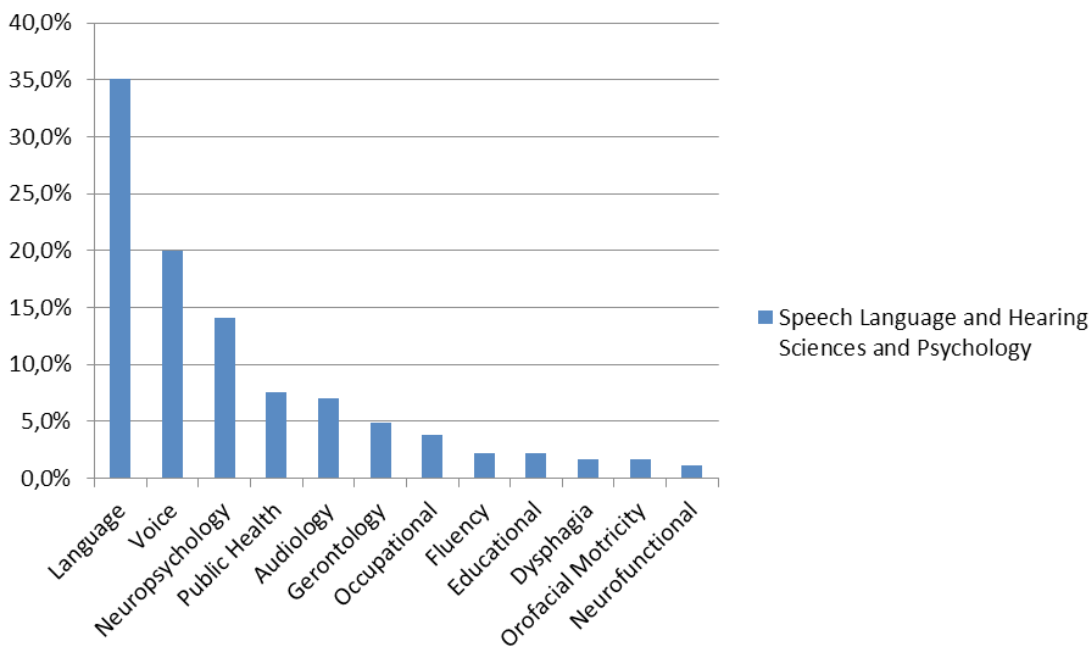
Among the specialties analyzed, a predominance of publications in Language and Voice related to Psychology stands out, as in Graphic 3.



**Figure 2.** Year of publication of scientific studies



**Figure 3.** Types of articles published



**Figure 4.** Specialties of speech language and hearing sciences





## Discussion

In relation to the years of publication of the works analyzed it was verified that growth occurred after the promulgation of the Law 10.216/2001<sup>4</sup> called deinstitutionalization, which provides for the protection and the rights of people with mental disorders, which may have encouraged the speech language pathologist and audiologist to reflect on the theme and to publish their experiences in this area. This advance may be due also to the publication of the Advice 04/2008<sup>7</sup> by the Regional Council of Speech Language and Hearing Sciences that presented the professional competencies in CAPSs:

From the year 2010, the publications back to fall. So, it is necessary to emphasize the importance of professional speech language pathologist and audiologist and psychologists to continue investing in the area of mental health. According to the indicators of the Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP)<sup>15</sup> Brazil was the third largest country in production of articles in the area of Psychology in the period from 2008 to 2010, only behind Canada and Spain. Thus, it is possible to enhance the existing interface between Psychology and Speech Language and Hearing Sciences and increase the number of scientific productions.

Currently there is a movement of the Federal and Regional Councils of the Speech Language and Hearing Sciences<sup>16</sup> as to the realization of Workshops of Awareness on Mental Health in all regions of the country, with the aim of raising the professional category, professors, students and administrators about the current public policies. It is expected that the actions extend the acting of the speech language pathologist and audiologist in the labor market in the mental health area and encourage them to publish their experiences in teaching and in the different scenarios of action.

Regarding to the type of productions, the most used which relates Speech Language and Hearing Sciences and Psychology is the original article. According to the ABNT<sup>17</sup> original article is part of a publication that presents themes or original approaches. In this case unique, delimited themes are addressed, that uses a rigorous and methodological reasoning, in an interpretative, argumentative, dissertation and appreciative way, evaluating results and research advances in relation to the scientific growth of the area. In addition, it is necessary a

great theoretical reference to support the new, original and unpublished idea that it communicates<sup>18</sup>.

About the results of specialties, emphasis was given to a predominance of publications in Language and Voice related to Psychology. The relationship between language and psychology is evident in the literature<sup>19</sup> that demonstrates by means of the psychoanalytic perspective that psychic instance is inseparable from the linguistic instance.

Studies have shown that diseases that involve the psychological character can affect the aspect of the language. Oliveira<sup>20</sup> showed the relationship between psychosis and echolalia in child communication. Bonatto e Chacon<sup>21</sup> investigated the subjectivity in the speech of a psychotic child, describing the moments when there were hesitations and reported that the hesitations are not, necessarily, a conscious process. In addition, other disorders that lead to a change in aspect of the language configured as a psychical change too, for example, the dementia, autism spectrum disorders, schizophrenia, and others<sup>22-23-24</sup>.

In relation to Voice, the literature demonstrates that there is no way to deny its relationship with psychology<sup>25</sup>. A study compared a group of teachers with vocal complaints to a group of teachers without such complaints and found that there is interference of emotions in the voice<sup>26</sup>. There are limitations of speech language and hearing therapy for psychogenic dysphonia, finding that the treatment may be limited and challenging<sup>27</sup>.

Finally, it is clear that vocal disorders can be triggered by anxiety, stress, depression, frustration, emotional state and mood of the individual, among other factors of the psychic nature<sup>26-28-29</sup>.

We also emphasize that the specialty of Dysphagia was one of the areas of speech language and hearing sciences that had the lowest number of publications related to Psychology, maybe because there is an organic change. However, despite of the research that investigates this relation being limited, there is a study that shows the psychic aspect's relevance in speech language hearing rehabilitation in Dysphagia.

## Conclusion

This study characterized the national periodical publications integrating Speech Language and Hearing Sciences and Psychology in a period of 10



years and helped to identify that they were increasing, reaching the eminence in 2010. The published studies were predominantly original articles and case studies in the areas of language and voice.

It should be emphasized that further studies are necessary to compare to the international production, as well as studies that may have been published in journals of other areas, such as Psychology.

Finally, this study can be replicated after the Workshops of Awareness on Mental Health in order to determine whether there was an impact on scientific production.

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