

A PROFILE OF RESEARCHERS IN SPEECH, LANGUAGE AND HEARING SCIENCE WITH PRODUCTIVITY GRANTS FROM (CNPQ)

Perfil dos pesquisadores com bolsa de produtividade em pesquisa do CNPq da área de fonoaudiologia

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ABSTRACT

Purpose: to identify the profile of research productivity grants of Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) in the area of Speech, Language and Hearing Sciences. **Methods:** from the list of grantees of research productivity in the area of Speech with current grants in 2010, were verified characteristics of training, publishing articles in databases: LILACS, SciELO Brazil, MEDLINE, and Web of Science, identifying the production of scientific articles of scholarship in the Brazilian scientific community, published between 2006-2010. It was also used the JCR indicator and the Qualis classification for analysis of journals. **Results:** of the 46 grantees, 45 (98%) are graduated in Speech, Language and Hearing Science and are engaged in teaching activities, 22 (47.83%) in the Southeast and 24 (52.17%) have institutional affiliation in public universities. Regarding production, were identified 935 articles, of which 816 (87.27%) in 48 Brazilian journals and 119 (12.72%) in 47 foreign journals. With respect to journals, from 95 Brazilian and foreign titles analyzed, 38 (40%) showed no impact factor. **Conclusions:** the presence of women is great in this knowledge area, with the highest occurrence of PQ researchers with institutional affiliation in public universities, located in the Southeast and South country regions. The analysis of scientific articles production from scholars of Speech tended to publish their articles in Brazilian journals, while seeking editorial quality: peer-reviewed and indexed in databases, combined with the JCR indicator and the Qualis classification.

KEYWORDS: Scientific Publication Indicators; Bibliometrics; Research Support as Topic; Research Personnel; Databases, Bibliographic

■ INTRODUCTION

In the past few years, Brazil has acquired a highlight position in scientific and high-tech production. These achievements are linked to investments on research and human resources. Parts of these resources come from the Science,

Technology and Innovation Ministry (Ministério da Ciência, Tecnologia e Inovação - MCTI), through its promotion agencies: Studies and Projects Financing (Financiadora de Estudos e Projetos - FINEP) and the National Scientific and Technological Development Council (Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq). The MCTI was created by the Decree 91.146, on March 15th, 1985 to concretize the formal commitment between the Government and the national scientific community^{1,2}.

To acknowledge the strategic importance of science and technology is to acknowledge the Brazilian's administration and society's efforts to get a hold on the scientific and technologic

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knowledge, improving the pace, reach and direction of the country's social and economic development^{2,3}.

To turn knowledge into wealth and social development is the current world's foundation, and by this way, Brazil's CNPq has been decisive. Knowledge is one of the main inputs to generate wealth. They also point the Universities' main role in the allegiance between education and learning evolving⁴.

Today, Brazil is responsible for 2,69% of world's publishing and 54,42% of Latin America's publishing⁵. This noticeable expansion is observed in consolidated fields like medicine, physics, chemistry, human sciences, social studies and engineering⁶. Particularly in the health scope, it is being shown by the extending of post-graduation programs, forming of research crews, amount of qualified researchers and publishing of scientific articles in indexed journals⁷.

The Health field participation in the national's scientific production increased the urge of investments and financial resources for research projects and for productivity grants on research of the CNPq, which offers many kinds of grants, being it individual within the country or abroad, or grants by quotes. In the individual scientific promotion grants category, the Research Productivity grant (PQ) is listed. Its purpose is "to encourage the growth of research activity continuously, in national institutions, aiming the knowledge harvest and the formation of investigators, by providing attractive and equitable material conditions for active researchers"^{8,9}.

The investments made in this PQ grant category allowed the growth of this scientific production, as qualitatively as quantitatively. On investments matter, PQ grants surpassed the 11k mark by 2009, increasing about 14%¹⁰.

This kind of grant allows individual concessions to researchers of Doctorate degree or equal scientific degree, from all knowledge scopes, intending to showcase their work and enrich their academic production. Researchers granted with the PQ grant are divided into five different levels: 2, 1D, 1C, 1B and 1A, comparatively based on their pairs and the last ten years data. Among them are the ones who presented skills to continuously raise human resources. Level A is destined to applicants who have shown constant distinction on scientific production, raising human resources and leading solid researching crews. Levels B and C applicants, further than the crescent contribution on raising human resources and scientific and technological production, are valued by their work on organizing researching crews, graduation and post-graduation programs in their Institutions. On level 2, the personal production of the applicant is

observed, with emphasis on published works and orientations, both referred to the past five years¹¹.

On Speech Language Pathology, researchers reflect on the amount of articles published in this area. This way, to measure and identify the production of the original scientific articles made by students with grants in Speech Language Pathology from the CNPq is one of the most important subjects to track quantitative tendencies and features of this production. Then, to locate the researchers' Curriculum Lattes, their databases, as the Journal Citation Reports (JCR) impact factor indicators and the Qualis classification of periodicals becomes fundamental to the identification of the production made in Brazil and outside, as well as the way and where it was disclosed.

The present study aims to identify the profiles of the PQ grantees according to informations regarding their graduation, titration and professional institutional affiliations, and find the production of their scientific articles published in Brazilian and foreign journals, according to the JCR indicator (international)¹² and the Qualis¹³ classification of journals between 2006 and 2010, from the PQ grantees in research of the CNPq, in Speech Language Pathology.

■ METHODS

This research was approved by the São Paulo's Hospital and the Federal University's Ethics in Research Committee (Comitê de Ética em Pesquisa da Universidade Federal de São Paulo/Hospital São Paulo), implemented respecting the Resolution 196, established by the National Council of Health (Conselho Nacional de Saúde) at October 10th, 1996, according to an Advice dated May 21st, 2010 (CEP 0658/10).

This is a descriptive and qualitative study based on appropriate data to its application, as its main objective is the description of features of given population or phenomenon.

The selection of researchers was made according to the list disclosed by the CNPq in 2010, regarding 46 PQ grantees in Speech Language Pathology¹⁴. The grantees' features were analyzed starting with the Curriculum Lattes, which was up to date in 2010. The extracted information, according to inclusive criteria, was:

a) Titration (*Doutorado*, *Pós-Doutorado* and *Livre-Docência*, a degree similar to Habilitation, above Associate Professor); b) public and particular Institutions (genres) where they got the titrations of *Doutorado* and respective acknowledge areas, following the CAPES ranking (Brazil and worldwide); c) institutions where they got *Pós-Doutorado* (Brazil and worldwide); d) Institutions

where they advocated *Livre-Docência*;e) Institutions to which they are professionally affiliated.

The production of scientific articles was identified in national and international databases. Related to the scientific journals analysis, the JCR indicator from 2010 and Qualis classification of periodicals, referring to the time between 2007 to 2009, updated on January 2010 were used.

The information about scientific articles production of the 46 CNPq Productivity Grant Researchers were collected from the most important databases of the Science and Health fields, limited to the processing timeframe from 2006 to 2010, which are the following: LILACS – *Literatura Latino-Americana e do Caribe em Ciências da Saúde* – from BIREME (Latin-American and Caribe Information Center of Health Sciences) – OPAS (Organização Pan Americana da Saúde) – OMS (Organização Mundial da Saúde); SciELO Brasil – (Scientific Electronic Library Online) – FAPESP (Fundação de Amparo à Pesquisa do Estado de São Paulo); MEDLINE (Medical Literature Analysis and Retrieval System Online); NLM (National Library of Medicine – Bethesda – Washington – USA); Web of Science (WOS) and quote indexes: Science Citation Index Expanded (SCI – Expanded), Social Sciences Citation Index (SSCI) e Arts & Humanities Citation Index (A&HCI) from the company Thomson Reuters, Philadelphia – USA.

The bibliographic research on these databases was made over each researcher's full name, homonyms and surnames variations, identifying the scientific articles production wrote by them as main author or co-author.

From the indexed production from 2006 to 2010, were excluded duplicated scientific articles, indexed among the several sources investigated, also those filed as editorials, notes, replicas, supplements, events and bulletin. Although it is part of the knowledge and propaganda from Speech Language Pathology field, other types of papers were discarded, such as: books, books chapters, dissertations and thesis, once it was not listed in the researched databases like LILACS, SciELO Brasil, MEDLINE and WOS.

After the calculation of the results, it was analyzed according to its absolute values (N) and relatives (%).

■ RESULTS

Profile of productivity grant researchers in Speech Language Pathology and their production in scientific journals

The Speech Language Pathology productivity grant researchers of CNPq sum 46 individuals, being 38 level PQ-2 (83%) and less distributed among the levels PQ-1A to PQ-1D, 8 grantees (17%).

Regarding researchers titration, considering fields of study, it is noted that 54,35% are graduated in Speech Language Pathology and 45,75% on other fields (linguistics, psychology, medicine, biology, history and public health).

As of getting the Doctorate degree, from 46 grantees, the majority, i.e. 40 (86,96%) got it in the Southeast region; 4 (8,70%) in the South and 2 (4,35%) abroad the country. As for the post-Doctorate, 9 grantees got it abroad, 3 in the Southeast region and 1 in the South.

The *Livre-Docente* degree was mentioned by 22 grantees which advocated it in the Southeast region. Regarding the employment links, most of the grantees, 24 (52,17%) are concentrated in state Institutions, prevailing those of level PQ-2, and 12 in federal Institutions (26,09%).

The grantees researchers published 935 articles within the timeframe from 2006 to 2010. The information was collected from the databases LILACS, SciELO Brasil, MEDLINE (MDL) and Web of Science (WOS). The production of these researchers was disclosed in 48 Brazilian journals, corresponding to 816 (87,27%) articles (Table 1). From this total, 12 journals are indexed in all databases (LILACS, SciELO Brasil, MDL e WOS), that corresponds to 41 (5,02%) articles published by the researchers; 2 in the databases LILACS, SciELO Brasil and MEDLINE, reuniting 318 (38,97%) articles and 12 in the databases LILACS and SciELO Brasil, with 363 (44,48%) articles (Table 1).

Table 1 – Distribution of the articles from the Speech Language Pathology PQ grantees published in Brazilian journals between 2006 to 2010

Journals	Sources of Indexing	Total of articles indexed in databases	
		N	%
Pró-fono: Revista de Atualização Científica*	MDL/LILACS/ SciELO BR	217	26,59
Revista da Sociedade Brasileira de Fonoaudiologia*	LILACS/SciELO BR	174	21,32
Revista CEFAC*	LILACS/SciELO BR	152	18,63
Brazilian Journal of Otorhinolaryngology / título anterior Rev Bras Otorrinolaringol*	MDL/LILACS/ SciELO BR	101	12,38
Distúrbios da Comunicação*	LILACS	33	4,04
Arquivos de Neuro-psiquiatria*	MDL/WOS/LILACS/ SciELO BR	18	2,21
Revista Brasileira de Educação Especial*	LILACS/SciELO BR	11	1,35
Dementia & Neuropsychologia*	LILACS	10	1,23
Arquivos Internacionais de Otorrinolaringologia*	LILACS/SciELO BR	8	0,98
Salusvita*	LILACS	8	0,98
Psicologia em Estudo*	LILACS/SciELO BR	7	0,86
Temas sobre Desenvolvimento*	LILACS	7	0,86
Journal of Epilepsy and Clinical Neurophysiology*	LILACS/SciELO BR	5	0,61
Revista Dental Press de Ortodontia e Ortopedia Facial*	LILACS	5	0,61
Brazilian Journal of Medical and Biological Research*	MDL/WOS/LILACS/ SciELO BR	4	0,49
Journal of Applied Oral Science*	MDL/WOS/LILACS/ SciELO BR	4	0,49
Revista Clínica de Ortodontia Dental Press*	LILACS	4	0,49
Ciência & Saúde Coletiva*	WOS/LILACS/ SciELO BR	3	0,37
Einstein (São Paulo)*	LILACS	3	0,37
Odonto (São Bernardo do Campo)**	LILACS	3	0,37
Ortodontia (parou a indexação na MEDLINE em 1987)*	LILACS	3	0,37
São Paulo Medical Journal*	MDL/WOS/LILACS/ SciELO BR	3	0,37
Brazilian Journal of Infectious Diseases*	MDL/WOS/LILACS/ SciELO BR	2	0,25
Clinics*	MDL/WOS/LILACS/ SciELO BR	2	0,25
Ortho Science: Orthodontics Science and Practice**	LILACS	2	0,25
Revista Brasileira de Psiquiatria*	MDL/WOS/LILACS/ SciELO BR	2	0,25
Revista Brasileira de Saúde Ocupacional*	LILACS	2	0,25
Revista de Saúde Pública*	MDL/WOS/LILACS/ SciELO BR	2	0,25
Scientia Medica**	LILACS	2	0,25
Acta Fisiátrica*	LILACS	1	0,12
Anais da Academia Brasileira de Ciências*	MDL/WOS/LILACS/ SciELO BR	1	0,12
Applied Cancer Research**	LILACS	1	0,12
Dental Press Journal of Orthodontics**	LILACS/SciELO BR	1	0,12
Estudos de Psicologia (Campinas)*	LILACS/SciELO BR	1	0,12
Fisioterapia em Movimento*	LILACS/SciELO BR	1	0,12
Fono Atual - parou a indexação na Lilacs 2006*	LILACS	1	0,12
Genetics and Molecular Research*	MDL/WOS/ LILACS/SciELO BR	1	0,12
Pediatria Moderna*	LILACS	1	0,12
Psicologia Escolar e Educacional*	LILACS/SciELO BR	1	0,12
Radiologia Brasileira**	LILACS/SciELO BR	1	0,12
RBM: Revista Brasileira de Medicina*	LILACS	1	0,12

Journals	Sources of Indexing	Total of articles indexed in databases	
		N	%
Revista Brasileira de Cirurgia da Cabeça e Pescoço*	LILACS	1	0,12
Revista Brasileira de Fisioterapia*	MDL/WOS/LILACS/ SciELO BR	1	0,12
Revista Brasileira de Neurologia**	LILACS	1	0,12
Revista Brasileira de Saúde Materno Infantil*	LILACS/SciELO BR	1	0,12
Revista da Associação Médica Brasileira (1992)*	MDL/WOS/LILACS/ SciELO BR	1	0,12
Revista de Medicina (São Paulo)**	LILACS	1	0,12
Saúde e Sociedade*	WOS/LILACS/ SciELO BR	1	0,12
Total 48		816	100

Source: LILACS, SciELOBrasil, MEDLINE e WOS

Caption: * evaluated journals in the area 21 – Qualis

** evaluated journals not listed in the area 21 – Qualis

The data collected shows that PQ grantees concentrate their publishing in the Speech Language Pathology field, featuring: Pró-Fono: Revista de Atualização Científica, Revista da Sociedade Brasileira de Fonoaudiologia and Revista CEFAC, that together sum 543 (66,54%) articles. All of them indexed on LILACS, SciELO Brasil and MEDLINE databases (Table 1).

The productivity researchers published in 47 foreign journals, totalizing 119 (12,72%) articles (Table 2). Out of 47 journals, 43 (91,48%)

are indexed in MEDLINE and WOS databases, containing 108 (11,55%) published articles and only 4 in MEDLINE, with 11 (9,24%) published articles (Table 2). The majority of their publishing is linked to 4 foreign journals: Cleft Palate-craniofacial Journal (9,24%), International Journal of Audiology (8,40%), American Journal of Medical Genetics – Part A (7,56%) and Folia Phoniatica e Logopaedica (6,72%), totalizing 38 (31,93%) articles from the production sent to foreign journals (Table 2).

Table 2 - Distribution of the articles from the Speech Language Pathology PQ grantees published in foreign journals between 2006 to 2010

Journals	Sources of Indexing	Total of articles indexed in databases 2006-2010	
		n	%
CleftPalate-craniofacial Journal*	MDL/WOS	11	9,24
InternationalJournalofAudiology*	MDL/WOS	10	8,40
American Journal of Medical Genetics – Part A*	MDL/WOS	9	7,56
Folia Phoniatica et Logopaedica*	MDL/WOS	8	6,72
Cranio – título anterior JournalofCranio-mandibular Practice*	MDL/WOS	7	5,88
International Journal of Pediatric Otorhinolaryngology*	MDL/WOS	7	5,88
InternationalTinnitusJournal*	MDL	6	5,04
JournalofVoice*	MDL/WOS	6	5,04
AudiologyandNeurootology*	MDL/WOS	4	3,36
American Annals of the Deaf*	MDL/WOS	3	2,52
Journalof Craniofacial Surgery*	MDL/WOS	3	2,52
BrainandDevelopment*	MDL/WOS	2	1,68
ClinicalDysmorphology*	MDL/WOS	2	1,68
DentomaxillofacialRadiology**	MDL/WOS	2	1,68
International Journal of Orofacial Myology***	MDL	2	1,68
EuropeanJournalofNeuroscience*	MDL/WOS	2	1,68
Journalof Communication Disorders*	MDL/WOS	2	1,68

Journals	Sources of Indexing	Total of articles indexed in databases 2006-2010	
		n	%
Journalof Oral Rehabilitation*	MDL/WOS	2	1,68
PediatricBlood&Cancer*	MDL/WOS	2	1,68
World JournalofOrthodontics**	MDL	2	1,68
Acta Oto-laryngologica*	MDL/WOS	1	0,84
Acta Reumatológica Portuguesa*	MDL/WOS	1	0,84
Alzheimer Disease and Associated Disorders*	MDL/WOS	1	0,84
Annals of Otology, Rhinology and Laryngology**	MDL/WOS	1	0,84
BehaviouralBrain Research**	MDL/WOS	1	0,84
ClinicalLinguistics&Phonetics*	MDL/WOS	1	0,84
EarandHearing*	MDL/WOS	1	0,84
Epilepsy&Behavior*	MDL/WOS	1	0,84
EuropeanJournalofOrthodontics**	MDL/WOS	1	0,84
Geriatrics&GerontologyInternational**	MDL/WOS	1	0,84
International Journal of Clinical Pharmacology and Therapeutics**	MDL/WOS	1	0,84
International Journal of Geriatric Psychiatry*	MDL/WOS	1	0,84
International Journal of Oral & Maxillofacial Implants*	MDL/WOS	1	0,84
International Journal of Oral and Maxillofacial Surgery*	MDL/WOS	1	0,84
InternationalPsychogeriatrics**	MDL/WOS	1	0,84
JournalofNeuroscience**	MDL/WOS	1	0,84
JournalofPediatrics**	MDL/WOS	1	0,84
Journal of the Experimental Analysis of Behavior*	MDL/WOS	1	0,84
Laterality*	MDL/WOS	1	0,84
Methods (San Diego): a companion to methods in enzymology**	MDL/WOS	1	0,84
Molecular GeneticsandMetabolism**	MDL/WOS	1	0,84
Neuropediatrics*	MDL/WOS	1	0,84
Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology and Endodontics*	MDL/WOS	1	0,84
Otolaryngology – Head and Neck Surgery**	MDL/WOS	1	0,84
Revista de Neurologia (Barcelona)*	MDL/WOS	1	0,84
Revue de Laryngologie, d'otologie et de Rhinology*	MDL	1	0,84
Rhinology**	MDL/WOS	1	0,84
Total 47		119	100

Source: LILACS, SciELOBrasil, MEDLINE e WOS

Caption: * evaluated journals in the area 21 – Qualis

** evaluated journalsnot listed in the area 21 – Qualis

*** journal not shown in the listing available by the Qualis

Starting on the impact indices, two indicators were analyzed: Qualis – CAPES¹³from the years 2007-2009, with updating on February 2010 of the JCR¹², that shows the relation between the indices of the 48 Brazilian journals and the 47 foreign journals (Tables 3 and4).

Regarding to the brazilian journals, the grantees researchers published their articles in 48 titles making 816 articles, only 14 of these journalshaving both indicators: JCR and Qualis, correspondingto 45 (5,5%) published articles. By the Qualis classification, the grantees researchers published mainly

in journals rated A2 (four articles), B1 (583 articles) and B2 (175 articles) (Table 3).

Fromthe 47 foreign journals totalizing 119 articles, only 29 had both indicators, corresponding to 87 (73,10%) published articles by the grantees. By the Qualis classification, the grantees researchers published mainly in journals rated: A1 (2 journals, 11 articles), A2 (11 with 40 articles), B1 (15 with 24 articles), B2 (2 with 7articles) and C (2with5articles), while in the JCR the 47 journals presented variations between the indices from the highest 7.271 to the lowest 0.451 (Table 4).

Table 3 - Qualis Indicators 2007-2009 and impact factors JCR 2010 from the Brazilian journals

Journals	Total of articles indexed in databases 2006-2010	Indicators	
		Qualis	JCR
Brazilian Journal of Medical and Biological Research*	4	A2	1.150
Arquivos de Neuro-psiquiatria*	18	B1	0.574
Arquivos Internacionais de Otorrinolaringologia*	8	B1	-
Brazilian Journal of Infectious Diseases*	2	B1	0.811
Clinics*	2	B1	1.422
Genetics and Molecular Research*	1	B1	1.013
Pró-fono: Revista de Atualização Científica*	217	B1	-
Revista Brasileira de Fisioterapia*	1	B1	0.368
Revista Brasileira de Psiquiatria*	2	B1	1.593
Revista Brasileira de Saúde Materno Infantil*	1	B1	-
Revista CEFAC*	152	B1	-
Revista da Sociedade Brasileira de Fonoaudiologia*	174	B1	-
Revista de Saúde Pública*	2	B1	0.862
São Paulo Medical Journal*	3	B1	0.577
Anais da Academia Brasileira de Ciências*	1	B2	0.925
Brazilian Journal of Otorhinolaryngology / título anterior RevBras Otorrinolaringologia*	101	B2	-
Ciência & Saúde Coletiva*	3	B2	0.438
Distúrbios da Comunicação*	33	B2	-
Estudos de Psicologia (Campinas)*	1	B2	-
Fisioterapia em Movimento*	1	B2	-
Journal of Applied Oral Science*	4	B2	0.966
Journal of Epilepsy and Clinical Neurophysiology*	5	B2	-
Psicologia em Estudo*	7	B2	-
RBM: Revista Brasileira de Medicina*	1	B2	-
Revista Brasileira de Educação Especial*	11	B2	-
Revista da Associação Médica Brasileira (1992)*	1	B2	0.553
Revista Dental Press de Ortodontia e Ortopedia Facial*	5	B2	-
Saúde e Sociedade*	1	B2	0.171
Acta Fisiátrica*	1	B3	-
Einstein (São Paulo)*	3	B3	-
Ortodontia (parou a indexação na MEDLINE em 1987)*	3	B3	-
Pediatria Moderna*	1	B3	-
Psicologia Escolar e Educacional*	1	B3	-
Revista Brasileira de Cirurgia da Cabeça e Pescoço*	1	B3	-
Salusvita*	8	B3	-
Temas sobre Desenvolvimento*	7	B3	-
Dementia & Neuropsychologia*	10	B5	-
Revista Brasileira de Saúde Ocupacional*	2	B5	-
Revista Clínica de Ortodontia Dental Press*	4	B5	-
Fono Atual - parou a indexação na Lilacs 2006*	1	C	-
Applied Cancer Research**	1	-	-
Dental Press Journal of Orthodontics**	1	-	-
Odonto (São Bernardo do Campo)**	3	-	-
Ortho Science: Orthodontics Science and Practice**	2	-	-
Radiologia Brasileira**	1	-	-
Revista Brasileira de Neurologia**	1	-	-
Revista de Medicina (São Paulo)**	1	-	-
Scientia Medica**	2	-	-
Total 48	816		

Source: Qualis-CAPES (2007-2009) updates february 2010 and JCR, 2010

Caption: * evaluated journals in the area 21 – Qualis

** evaluated journals not listed in the area 21 – Qualis

Table 4 - Qualis Indicators 2007-2009 and impact factors JCR 2010 from the foreign journals

Journals	Total of articles indexed in databases 2006-2010	Indicators	
		Qualis	JCR
American Journal of Medical Genetics – Part A*	9	A1	2.505
EuropeanJournalofNeuroscience*	2	A1	3.658
Alzheimer Disease and Associated Disorders*	1	A2	2.583
CleftPalate-craniofacial Journal*	11	A2	0.770
Epilepsy&Behavior*	1	A2	1.994
Folia Phoniatica et Logopaedica*	8	A2	0.726
International Journal of Geriatric Psychiatry*	1	A2	2.029
International Journal of Oral & Maxillofacial Implants*	1	A2	1.681
International Journal of Pediatric Otorhinolaryngology*	7	A2	1.067
Journal of the Experimental Analysis of Behavior*	1	A2	1.211
JournalofVoice*	6	A2	1.108
Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology and Endodontics*	1	A2	1.417
PediatricBlood&Cancer*	2	A2	1.948
Acta Oto-laryngologica*	1	B1	1.200
American Annals of the Deaf*	3	B1	0.694
BrainandDevelopment*	2	B1	1.979
ClinicalDysmorphology*	2	B1	0.580
ClinicalLinguistics&Phonetics*	1	B1	0.574
Cranio – título anterior JournalofCranio-mandibular Practice*	7	B1	0.641
InternationalJournalofAudiology*	10	B1	1.266
International Journal of Oral and Maxillofacial Surgery*	1	B1	1.302
Journalof Communication Disorders*	2	B1	1.433
Journalof Craniofacial Surgery*	3	B1	0.772
Journalof Oral Rehabilitation*	2	B1	1.462
Laterality*	1	B1	1.384
Neuropediatrics*	1	B1	0.975
Revista de Neurologia (Barcelona)*	1	B1	1.218
Revue de Laryngologie, d'otologie et de Rhinology*	1	B1	-
Acta Reumatológica Portuguesa*	1	B2	0.451
InternationalTinnitusJournal*	6	B2	-
AudiologyandNeurootology*	4	C	2.228
EarandHearing*	1	C	2.257
Annals of Otolaryngology, Rhinology and Laryngology**	1	-	1.344
BehaviouralBrain Research**	1	-	3.393
DentomaxillofacialRadiology**	2	-	1.640
EuropeanJournalofOrthodontics**	1	-	0.932
Geriatrics&GerontologyInternational**	1	-	1.782
International Journal of Clinical Pharmacology and Therapeutics**	1	-	1.189
International Journal of Orofacial Myology***	2	-	-
InternationalPsychogeriatrics**	1	-	2.478
JournalofNeuroscience**	1	-	7.271
JournalofPediatrics**	1	-	4.042
Methods (San Diego): a companion to methods in enzymology**	1	-	4.527
Molecular GeneticsandMetabolism**	1	-	3.539
Otolaryngology – Head and Neck Surgery**	1	-	1.565
Rhinology**	1	-	0.803
World JournalofOrthodontics**	2	-	-
Total 47	119		

Source: Qualis-CAPES (2007-2009) updates february 2010 and JCR, 2010

Caption: * evaluated journals in the area 21 – Qualis

** evaluated journalsnot listed in the area 21 – Qualis

*** journal not shown in the listing available by the Qualis

■ DISCUSSION

Based upon the increasing Brazilian scientific production, Brazil has acquired along the past few years a highlight position on high-tech production thanks to investments applied to research and human resources. One of the responsible promotion agencies in this enterprise is the CNPq, which gives grants to form human resources in the field of scientific and technological research, in Universities, research institutes, technological and professional forming centers, both in Brazil and abroad. Among the several types of grants is the Productivity in Research – PQ designated to researchers with Doctorate degree or equal, from all acknowledgement fields, aiming to showcase their work and enrich their academic production. It is given individually to the researcher in reason of the offer virtue, attending to requirements established by the CNPq and qualifying criteria established by the Advising Committee of each field and the *Comissão de Assessoramento Técnico-Científico*¹¹.

Speech Language Pathology, for being inserted in an epistemic and multidisciplinary field, reasons with biological, language and communication sciences¹⁵. This multidisciplinary nature is reflected in the formation's traits of the graduation, titrating of Doctorate and others titrating and institutional affiliations. The accomplishment of Doctorate, employing contract and other titrating in the Southeast region can be associated to the better available infrastructure on research and development (P&D), specialized human resources and higher amount of investments¹⁶. Considering the growth of researchers with Doctorate in Speech Language Pathology and the number of grantees included in an everyday smaller share of the researchers' group, the pressure to obtain these grants has increased, leading to tougher rules for these grants been given by the CNPq¹⁷. Further studies taken^{18,19} found similar results about the researchers' concentration in the same country's regions and affiliated to Universities.

To increase the researcher's visibility close to their pairs will be possible through the divulgation of their scientific works in national and foreign journals, even more those indexed in databases of health fields acclaimed in the scientific medium²⁰. One reason for the expansion of the Brazilian scientific production is the stability of investments from promotion agencies, such as CNPq and CAPES¹⁷. The internal investments in research and development, linked to current changes of political allegiances adopted by these agencies, has been reflected over the publishing of researchers' results in Brazilian and foreign journals¹⁷.

Analyzing the grantees production, it was noticeable that 100 articles published in 40 Brazilian journals didn't hit 1% of each one's production, what configures a great dispersion over the articles' publishing, according to the Bradford literature dispersion law, that determines to establish the core and dispersion areas over a given subject or a group of journals²¹. The data also reflects a large sort of divulgation mediums of Speech Language Pathology scientific production. The articles tend to concentrate in journals specialized in its own field. Similar results were gotten by the authors¹⁹ in the public health field¹⁷ when analyzing the group of occupational therapy journals.

It is important to point out that there is two scientific journal categories: with and without *peer-review* – only the journals with *peer-review* must be counted. The pair evaluation is based on the assumption that it gives a trustful quality measure of a manuscript and its conformity to the field's parameters. Its value also relays on providing an evaluation, in order to a manuscript may be improved through a revision^{22,23}.

Resuming, the production of this researchers group reaches, therefore, worldwide divulgation mainly through national indexed journals based upon international data. Also are considered for publishing of their works reasonable editorial quality journals, which contains: originality and quality of the published articles, selection of the articles by an editorial board acclaimed within the academic community of its field and *peer-review*^{18,24-26}.

To investigate the scientific production over a subject is relevant, because on watching the trajectory of its historical overview investigation tendencies are revealed and there is support for a research^{27,28}. Pointing evidences that given condition exist or certain results have been obtained is done through the biometric indicators²⁹. They aid the professionals up to take a decision on evaluating the progresses, on executing the results and goals, composing part of a responsabilization system based on results. Therefore, are taken to evaluate the scientific investigation: research projects, journals, articles, researchers, institutions, and even the international insertion of universities and research centers³⁰.

One of the indicators applied to this work is of international scope: impact factor. The impact factor is available by Thomson Reuters¹² through JCR base, that was created on the 60s by the scientists Irving H. Sher and Eugene Garfield³¹. On national scope the classification is Qualis.

The impact factor, according to Garfield^{32,33}, reflects the importance of the periodics but not of the articles in it. The impact factor is a system observes how many times the articles of a journal are quoted within

a timeframe (2 to 5 years), divided by the amount of articles published in this journal across the same timeframe.

Qualis is a classification of the divulgation medium of the Brazilian scientific productions in post-graduation programs, which offers Master and Doctorate courses accredited by CAPES. The Qualis uses as evaluation the JCR impact factor on journals, judging the titles employed by the authors who published in each field of knowledge^{23,34,35}.

Starting on the impact rates, 95 Brazilian and foreign titles were analyzed. From these, 38 (40%), 34 Brazilian and 4 foreign, do not have the impact factor, because they are not indexed on the Web of Science database.

In this study, it is noticeable that very few Brazilian journals are rated A1 and A2 on the Qualis, in such way that incentive politics are required for a bigger number of Brazilian journals reach the international categories.

Analyzing the information, it is valid to mention that the use of the Qualis classification has been reason for several criticisms. The chase for quality standards made the article publishing process to become exclusively directed to journals with higher impact factor, in other words, a select group of journals rated with Qualis. Post-graduation programs encourage the students to publish their work on this kind of journals to obtain titles, given the program is evaluated based on points reached by teachers and students³⁵⁻³⁷.

The data also reveals that there is a tendency of publishing more on Brazilian journals and less on foreign ones. Noticing this fact allows us to reflect over two statements: the impulse to write in the native language is too higher than to write in another language³⁰ and that the Brazilian journals are indexed

over important databases, what is accepted as an indicative parameter of scientific vigor³⁸. The article is, no doubt, the most efficient communication of the research. To invest on and strengthen these professionals allows the development of learning activities, research and extension, reckoned as the main duty of the University^{39,40}.

There is an evident projection about the scientific production of Speech Language Pathology and its consolidation as research field, assuming the role of interlocutor on the formation of its theoretical and methodological structure to spread the knowledge. This way, for being a field that interacts with many areas of the knowledge, it is important to reflect over the autonomy desired and how it is supposed to establish a conversation with researchers and research centers of foreign excellency to consolidate the built knowledge.

■ CONCLUSION

To achieve the suggested objectives, the profile of the Speech Language Pathology with grants on productivity research of CNPq was studied, which allowed to identify:

1. The feminine presence is still high in the knowledge field, being the major occurrence of PQ researchers linked to public Universities (specially State ones), located on the South and Southeast of the country.
2. The analysis of the scientific production of the Speech Language Pathology grantees showed a tendency to publish in Brazilian journals, not letting the search for editorial quality: peer review and indexation in databases, allied to the JCR indicator and the Qualis classification.

RESUMO

Objetivo: identificar o perfil dos bolsistas de produtividade em pesquisa do Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq, na área de Fonoaudiologia. **Métodos:** a partir da lista dos bolsistas de produtividade da área de Fonoaudiologia com bolsas vigentes em 2010, foram verificadas características de formação, publicação de artigos nas bases de dados: LILACS, SciELO Brasil, MEDLINE e Web of Science, identificando a produção de artigos científicos dos bolsistas na comunidade científica brasileira, publicados no período de 2006-2010. Também foi utilizado o indicador JCR e a classificação Qualis para análise das revistas. **Resultados:** das 46 bolsistas, 45 (98%) são graduadas em Fonoaudiologia e exercem a atividade de docência, 22 (47,83%) na Região Sudeste e 24 (52,17%) têm vínculo institucional nas universidades públicas (estaduais). Em relação à produção, foram identificados 935 artigos, sendo 816 (87,27%) em 48 revistas brasileiras e 119 (12,72%) em 47 revistas estrangeiras. Com respeito às revistas, dos 95 títulos brasileiros e estrangeiros analisados, 38 (40%) não apresentam o fator de impacto. **Conclusões:** a presença feminina é grande nesta área do conhecimento, sendo a maior ocorrência de pesquisadoras PQ com vinculação institucional nas universidades públicas, localizadas nas regiões Sudeste e Sul do país. A análise da produção de artigos científicos das bolsistas de Fonoaudiologia mostrou uma tendência a publicar seus artigos em revistas brasileiras, sem deixar de buscar a qualidade editorial: revisão de pares e indexação em bases de dados, aliadas ao indicador JCR e à classificação do Qualis.

DESCRIPTORIOS: Indicadores de Produção Científica; Bibliometria; Apoio à Pesquisa como Assunto; Pesquisadores; Bases de Dados Bibliográficas

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