Methodology Viability of the Project: "Creation of the Specific Speech, Language and Hearing Sciences Area in DeCS"

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Introduction

The Health Science Descriptors (DeCS), a trilingual and structured vocabulary (English, Portuguese and Spanish) developed from the Medical Subject Headings (MeSH), from the U.S. National Library of Medicine by Bireme - *Centro Latino-Americano e do Caribe de Informação em Ciências da Saúde* (Latin American and Caribbean Centre for the Health Science Information), has the purpose of indexing scientific documents and other scientific information sources of the Virtual Health Library (BVS). It is also used in the search and retrieval of documents by subject in other data bases (Lilacs, MedLINE etc.) (Guia..., 2005).

In addition to the original medical terms in MeSH, specific areas such as Public Health, Homeopathy, Science and Health Surveillance were developed, containing about 3500, 2000, 218 and 830 descriptors respectively (DeCS, s.d.).

The analysis made on the seven national Speech, Language and Hearing Sciences Journals (1986 – 2001) about the observed terms, found that there is a dispersion and that 43% of the used terms do not appear on the "Descritores em Ciências da Saúde (DeCS)" – Health Sciences Descriptors - (Campanatti-Ostiz, 2004).

The main purpose of this poster is to verify the methodology viability of the Project ""Creation of the Specific Speech, Language and Hearing Sciences Area in DeCS"".

Method

Data Bases

To access the selected articles, the following data bases were selected and accessed: National Library of Medicine (NLM) e Scientific Electronic Library Online (SciELO).

Selection of Journal and Issue

Pró-Fono Revista de Atualização Científica (ISSN 0104-5687): Volume 19, issue number 4, 2007.

The following parts of the selected articles were considered for the investigation and analysis of the terms: titles, abstracts and keywords.

Guidelines for the present study

The analysis of the terms found in the English Language titles and abstracts of the articles were based on the study by Roberts and Souter (2000). These authors present a research about automated indexation of subjects, using a software developed for this purpose – the terms found on the titles and abstracts of the scientific articles are analyzed and, later, the equivalent descriptors are indexed.

Phase I

Identification of the descriptors in the English language (MeSH) after analyzing the titles, abstracts and keywords of the published articles.

Phase II

Identification and quantification of the equivalent descriptors for the Portuguese Language (DeCS).

Results e Discussion

Ten articles were published in Pró-Fono Revista de Atualização Científica Volume 19, number 4, 2007 (pilot study). These analyzed articles generated a list of 2.322 terms, in English. Of this total, only 158 terms were descriptors found in MeSH (7% of the initial sample)

Considering the 158 descriptors found in MeSH for English, 147 had their equivalent descriptor in DeCS for Portuguese (6% of the initial sample). Given this, the analysis of the 2.322 terms in English was necessary in order to identify the 147 DeCS descriptors in Portuguese. These descriptors are shown on Table1, where the number of occurrence is also indicated.

Roberts and Souter (2000) demonstrate in their study that there are descriptor omissions in the search made by humans, whereas there are inaccurate additions in the automated process. The biggest setback reported by these authors was the verification process to determine if the added descriptors by the automated process were the same descriptors omitted in the human search, or if they were inaccurate.

TABLE 1. DeCS Descriptors in Portuguese, in alphabetical order and decreasing order of occurrence.

Number of Ocurrences	*DeCS Descriptor in Portuguese*	*Number of Ocurrences*	*DeCS Descriptor in Portuguese*	*Number of Ocurrences*	*DeCS Descriptor in Portuguese*
6	*Criança*	*1*	*Acuidade Visual*	*1*	*Leucomalácia Periventricular*
6	*Transtornos do Desenvolvimento da Linguagem*	*1*	*Acústica*	*1*	*Linguagem*
5	*Percepção Auditiva*	*1*	*Acústica da Fala*	*1*	*Memória de Curto Prazo*
4	*Deficiências do Desenvolvimento*	*1*	*Adulto*	*1*	*Métodos*
4	*Doenças Auditivas Centrais*	*1*	*Agnosia*	*1*	*Nervo Coclear*
4	*Transtornos da Linguagem*	*1*	*Aprendizagem*	*1*	*Pacientes*
4	*Transtornos da Percepção Auditiva*	*1*	*Aptidão*	*1*	*Paralisia Cerebral*
3	*Córtex Auditivo*	*1*	*Associação*	*1*	*Potenciação de Longa Duração*
3	*Linguagem Infantil*	*1*	*Ataxia*	*1*	*Potenciais de Ação*
3	*Potenciais Evocados Auditivos*	*1*	*Atividade Motora*	*1*	*Potenciais Evocados*
3	*Transtornos da Comunicação*	*1*	*Audição*	*1*	*Potenciais Microfônicos da Coclea*
3	*Transtornos de Aprendizagem*	*1*	*Audiometria de Resposta Evocada*	*1*	*Projetos Piloto*
2	*Análise e Desempenho de Tarefas*	*1*	*Boca*	*1*	*Psicolinguística*
2	*Análise Espectral*	*1*	*Características da População*	*1*	*Reabilitação dos Transtornos da Fala e da Linguagem*
2	*Características de Estudos [Tipo de Publicação]*	*1*	*Características de Estudos Epidemiológicos*	*1*	*Redação*
2	*Córtex Visual*	*1*	*Comunicação*	*1*	*Respiração*
2	*Desenvolvimento da Linguagem*	*1*	*Condutos Eferentes*	*1*	*Respiração Bucal*
2	*Desenvolvimento Infantil*	*1*	*Desempenho Psicomotor*	*1*	*Síndrome de Down*
2	*Diagnóstico*	*1*	*Destreza Motora*	*1*	*Síndrome de Imunodeficiência Adquirida*
2	*Doenças do Sistema Nervoso*	*1*	*Disartria*	*1*	*Sistema Estomatognático*
2	*Limiar Auditivo*	*1*	*Dislexia*	*1*	*Sistema Musculosquelético*
2	*Memória*	*1*	*Distúrbios da Fala*	*1*	*Sistema Respiratório*
2	*Patologia da Fala e Linguagem*	*1*	*Distúrbios da Voz*	*1*	*Técnicas de Diagnóstico do Sistema Respiratório*
2	*Potenciais Evocados Auditivos do Tronco Encefálico*	*1*	*Equilíbrio Musculosquelético*	*1*	*Terapia da Linguagem*
2	*Potencial Evocado P300*	*1*	*Estimulação Acústica*	*1*	*Testes Auditivos*
2	*Testes de Linguagem*	*1*	*Face*	*1*	*Testes de Aptidão*
2	*Transtornos da Memória*	*1*	*Família*	*1*	*Transtornos Cerebrovasculares*
2	*Transtornos das Habilidades Motoras*	*1*	*Gagueira*	*1*	*Transtornos da Audição*
2	*Transtornos Psicomotores*	*1*	*Gestos*	*1*	*Transtornos Motores*
2	*Vias Auditivas*	*1*	*HIV*	*1*	*Traumatismo Cerebrovascular*
1	*Acidente Cerebrovascular*	*1*	*Leitura*	*1*	*Voz*

We believe that the problem reported by Roberts and Souter (2000) was solved in this study. Considering the proposed method, first there was an automated search and analysis of the selected terms and, later, the search for equivalent descriptors, both in English and Portuguese, was carried out by the authors of this study. With this, the identified descriptors from the overall list were rigorously chosen according to the content of the selected scientific article.

Conclusion

The results presented in this study show, in general, that the proposed methodology for the creation of the specific Brazilian Speech, Language and Hearing Sciences in DeCS is effective and adequate. Suggestions: application of this model to a larger universe of Speech, Language and Hearing Sciences Journals; presentation of the preliminary results to the scientific community; and presentation of a proposal for the creation of a specific Speech, Language and Hearing Sciences area to Bireme.

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