

# PROFILE OF PUBLISHED PAPERS ON ORTHOPEDICS IN GENERAL JOURNALS

OLAVO PIRES DE CAMARGO, LUIZ EUGÊNIO GARCEZ LEME

## ABSTRACT

The authors study the profile of published papers on orthopedics in general journals, not specific to orthopedics, registered in PUBMED, in a period of two years. There were selected 67 papers with heterogeneous distribution

among the magazines studied. It was found the presence of 26.47% of articles with interventional design and 38% with observational one. The data are discussed

**Keywords:** Orthopedics. Musculoskeletal. Publication.

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## INTRODUCTION

The stimulus to scientific production and to regular publication in journals of impact is a constant occurrence at most technological institutions, especially at teaching institutions. In addressing matters relating to surgical specialties, particularly to orthopedics, several peculiarities can be observed. As regards intervention studies, particularly their most important representatives, randomized controlled clinical trials, it is often necessary to adapt randomization or masking methods, as well as bioethical demands to be considered, which requires specific knowledge and creativity.

As regards observational studies, the need for controls of co-variables that improve their applicability and generalization, also calls for special skills.

In our field, this situation leads to a growing demand for better prepared scientific surveys and, as a consequence, for publications capable of offering adequate resources of disclosure in scientific circles.

In this perspective, some topics such as those related to the musculoskeletal and locomotor systems, can be found not only in specialized orthopedics journals but also in magazines related to general topics in medicine and health.

In a previous study<sup>1</sup> we had the opportunity of studying the distribution of articles referring to the areas of orthopedics and sports medicine in journals from our field over a two-year period. In this article we strive to study publications related to

topics of interest to the study of the locomotor system in general and of orthopedics in particular, in non-orthopedic journals, registered in PUBMED.

## METHOD

In the years 2008 and 2009 investigations were conducted on articles with possible orthopedic interest published in four Brazilian periodicals not specifically connected to the orthopedic area, currently cataloged in PUBMED: São Paulo Medical Journal (Sao Paulo Med J), Revista da Associação Médica Brasileira (Rev Assoc Med Bras.), Clinics, Revista da Escola de Enfermagem da USP (Rev Esc Enferm USP) and Brazilian Journal of Infectious Diseases (Braz J Infect Dis).

The search strategies listed in Chart 1 were used for the selection of possible articles of interest.

Once selected the articles were individually evaluated by the authors to define their possible interest in orthopedics and study of the locomotor system.

Inclusion criteria: Articles published in the journals analyzed in the years 2008 and 2009 that fulfilled the search criteria.

Exclusion criteria: Articles that were not directly or indirectly related to orthopedics and study of the locomotor system.

The articles already selected were evaluated in terms of their survey design and the set of topics addressed.

The results were incorporated in an Excel spreadsheet. Microsoft's Excel 2007® program was used.

The results were presented in the percentage form.

All the authors declare that there is no potential conflict of interest referring to this article.

Department of Orthopedics and Traumatology of Faculdade de Medicina da Universidade de São Paulo.

Mailing address: Rua: Ovídio Pires de Campos, 333 - Cerqueira César - São Paulo, SP, Brazil, CEP: 05403-010. E-mail: [olapcama@uol.com.br](mailto:olapcama@uol.com.br)

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## RESULTS:

Using the aforementioned strategy, articles were found in the journals: *Sao Paulo Méd J*<sup>2-12</sup>, *Rev Assoc Med Bras*<sup>13-16</sup>, *Clinics*<sup>17-64</sup>, *Rev Esc Enferm USP*<sup>65</sup> and *Braz J Infect Dis.*<sup>66-68</sup>

Chart 2 presents the number of articles located through the search strategy (Chart 1) and the number of articles selected by the authors for their relationship with the area of interest of orthopedics and study of the locomotor system.

Table 1 presents the percentages of the localized articles relating to the topics addressed.

Table 2 presents the percentages of the localized articles relating to the survey designs.

## DISCUSSION

The search strategy allowed us to locate a group of 253 articles published in the years 2008 and 2009. When these were analyzed individually we were able to locate 67 publications effectively related to the areas of interest in locomotor system and orthopedics. This difference is due to the actual limitations of the search strategies that should be as inclusive as possible, in order not to lose articles. Subsequent selection, indispensable in the literature review method, guarantees the specificity of the publications included in the final survey.

There is considerable disparity among the publications studied, of which the majority is intended for *Clinics* and, to a lesser extent, for the *São Paulo Medical Journal*. This difference can be explained by the fact that these journals are well punctuated and with good agility and publication time. On the other hand

publications such as the *Brazilian Journal of Infectious Diseases* or the *Revista da Escola de Enfermagem da USP* are necessarily more restricted and geared toward a specialized audience, and cannot be compared in full with general magazines like the others.

As regards the set of topics covered, most of the articles referred to articles of clinical interest, including physical medicine, study of perioperative risk and support conditions, and articles related to the support of physical medicine. This fact can explain why these publications have been geared toward general journals and not those specialized in orthopedics. However, we can also find a significant number of articles on orthopedic surgery and anatomical studies, which would be suitable for specialized publications and might have been allocated to general publications to produce a greater impact of for greater general disclosure in the medical field.

As regards the survey design, we can find a balance among various designs with an expressive number of intervention studies, where clinical trials correspond to more than 26% of the total group in an apparent progression in relation to previous studies.<sup>1</sup> As regards the observational studies that amount to more than 38% of the studies, this is an expected measurement, since designs of case series, medical chart reviews and transversal observations are particularly prevalent in studies on orthopedics and area of interest in the locomotor system. The continuously high number of case reports, a design that is increasingly less publishable separately except in special cases, draws our attention.

As a conclusion we can observe that the number of publications

**Chart 1. Journals and search strategies.**

JORNAL	ISSN	Search Strategies
Sao Paulo Med J	1516-3180	(orthopedics OR bone OR muscle OR knee OR exercise OR hand OR ligament OR foot OR tendon) AND (1516-3180) AND ("2008/01/01"[Create Date] : "2009/12/31"[Create Date])
Rev Assoc Med Bras	0104-4230	(orthopedics OR bone OR knee OR muscle OR exercise OR hand OR ligament OR foot OR tendon) AND (0104-4230) AND ("2008/01/01"[Create Date] : "2009/12/31"[Create Date])
CLINICS	1807-5932	(orthopedics OR bone OR muscle OR knee OR exercise OR hand OR ligament OR foot OR tendon) AND (1807-5932) AND ("2008/01/01"[Create Date] : "2009/12/31"[Create Date])
Rev Esc Enferm USP	0080-6234	(orthopedics OR bone OR muscle OR knee OR exercise OR hand OR ligament OR foot OR tendon) AND (0080-6234) AND ("2008/01/01"[Create Date] : "2009/12/31"[Create Date])
Braz J Infect Dis	1413-8670	(orthopedics OR bone OR muscle OR knee OR exercise OR hand OR ligament OR foot OR tendon) AND (1413-8670) AND ("2008/01/01"[Create Date] : "2009/12/31"[Create Date])

**Chart 2. Articles located and selected**

JORNAL	Located articles	Selected articles
Sao Paulo Med J	23	12
Rev Assoc Med Bras	22	4
Clinics	94	47
Rev Esc Enferm USP	8	1
Braz J Infect Dis	12	3
TOTAL	253	67

**Table 1. Topics of published articles (percentage).**

Topic	Percentage (%)
Infections	4.48
Osteo-metabolic/Osteo-degenerative	8.96
Surgery	11.94
Perioperative care	8.96
Anesthesia	2.99
Anatomical	16.42
Clinical	20.90
Scales	5.97
Carers	2.99
Neoplasias	5.97
Epidemiological	2.99
Case report	7.46
	100.00

**Table 2. Design of published articles (percentage).**

Design	Percentage
Retrospective chart	5.88
Controlled Clinical Trial	26.47
Case reports	20.59
Case series	8.82
Scale validation	5.88
Transversal observation	20.59
Letter	2.94
Cohort	2.94
Anatomical	5.88
	100

in orthopedics and area of interest in the locomotor system has an expressive presence in general periodicals in medicine and health, which could indicate that there is still room for growth in specialized publications. We can also observe progression in the quality of survey designs with an expressive increase of intervention designs and the presence of observational designs of quality such as the cohort design.

On the other hand, we noticed the absence of secondary studies such as systematic reviews or meta-analyses, which might qualify as an area to be developed by researchers in the future.

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