

## Publication rate of abstracts presented in a Brazilian experimental surgery congress<sup>1</sup>

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### ABSTRACT

**PURPOSE:** To verify the publication rate of the abstracts presented at the XII Brazilian Congress of Experimental Surgery.

**METHODS:** We performed a cross-sectional study that evaluated if the abstracts accepted for presentation at the XII Brazilian Congress of Experimental Surgery were published in periodics. The information was acquired using the Scielo, Medline / Pubmed, LILACS and Google Scholar databases.

**RESULTS:** From all the abstracts presented, only 77 (40.52%) were published in scientific journals. Of this total, 14 (18.18%) were published prior to the conference 35 (45.45%) in the same year that occurred congress, 56 (72.72%) in the period 2011-2013 and 63 (81, 81%) between the Congress and the year 2015. Regarding the geographical distribution of summaries, 42 (22%) were from the northern region, 19 (10%) from the Northeast, 8 (4%) Midwest, 116 (61%) from the Southeast and 5 (3%) from the south.

**CONCLUSION:** The publication rate of the abstracts presented at the XII Brazilian Congress of Experimental Surgery was 40,52%, most from the state of Sao Paulo.

**Key words:** Abstracts. Publishing. Research.

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## Introduction

One of the great milestones of human history was the development of writing, this comes from the fact that the knowledge passed on orally eventually got lost or was modified over time, and only the civilizations with a type of writing managed to maintain and spread their culture throughout time<sup>1,2</sup>.

Brazil and the world live a great period of growth in the generation of scientific articles, which can be evidenced by the increasing amount of published Brazilian papers. The surgical areas have a prominent position, where there is a 231 times increase, whereas, in medicine as a whole, there is only an increase of 164 times<sup>3</sup>.

At the end of production of a scientific work, one of the products generated are scientific articles, which can be published in scientific journals, presented at conferences or both. The presentation of projects in national or international conferences is a key part of scientific development; in these environments, research lines are presented, preliminary results can be displayed and there is an open discussion between the researcher and other groups<sup>4-6</sup>.

However, if this work is not published, the knowledge generated is limited to participants of the congress, not reaching its full potential and leading to limited scientific progress. Projects end up being remade in different regions due to non-publication of results. In Brazil, it is clear that the published rates in surgical areas Congress vary between 2,9 to 26,6%<sup>6</sup>.

Experimental surgery is a basic science that has importance for all science, and could be published in a variety of journals<sup>10</sup>. Because of its peculiarity to present works that can be more easily published, it is believed that there is a higher publication of abstracts presented at conferences. However, it was not identified articles showing this data. The aim of this study is to verify the publication rate of the abstracts presented at the XII Brazilian Congress of Experimental Surgery.

## Methods

It was conducted a cross-sectional study that evaluated all abstracts accepted for presentation at the XII Brazilian Congress of Experimental Surgery, held in 2011 in the city of Ribeirao Preto, Sao Paulo, Brazil.

A search was made using the Scielo, Medline / Pubmed, LILACS and Google Scholar databases. The full title of the abstract was used as the search variable. If the article was not identified, an additional search through the Lattes platform was performed, using the names of the authors.

From all abstracts, we collected the following information<sup>8</sup>: general data (identification of the work, class presentation, original title, nationality and geographic location of the service), specific data from the published ones (published title, journal and index location), number of authors and sex of the authors 1 author and last author. The abstracts were evaluated by two experienced and independent examiners. In case there was disagreement between the examiners, a third one was used as a decision. The analysis was performed in November 2015.

Data was organized and analyzed with the help of software BioEstat<sup>®</sup> 5.4 and Excel<sup>®</sup> 2010 and presented as descriptive statistics.

## Results

In the congress, 194 abstracts were presented, however, four had the same title and authors, therefore were excluded from the analysis. Of this total, two summaries were literature review, one was a meta-analysis and 187 were original articles. Regarding the geographical distribution of summaries, 42 (22%) were from the Northern region, 19 (10%) from the Northeast, 8 (4%) Midwest, 116 (61%) from the Southeast and 5 (3%) from the South. There were no international abstracts. Table 1 shows the distribution by states.

**TABLE 1** – Distribution of abstracts according to the states.

States	Presentations	Percentage	Publications	Percentage
Acre	0	0,00%	0	0,00%
Alagoas	0	0,00%	0	0,00%
Amapá	0	0,00%	0	0,00%
Amazonas	1	0,53%	0	0,00%
Bahia	3	1,58%	0	0,00%
Ceará	0	0,00%	0	0,00%
Distrito Federal	7	3,68%	7	9,09%
Espírito Santo	0	0,00%	0	0,00%
Goiás	1	0,53%	0	0,00%
Maranhão	10	5,26%	5	6,49%
Mato Grosso	0	0,00%	0	0,00%
Mato Grosso do Sul	0	0,00%	0	0,00%
Minas Gerais	9	4,74%	3	3,90%
Pará	40	21,05%	6	7,79%
Paraíba	0	0,00%	0	0,00%
Paraná	3	1,58%	1	1,30%
Pernambuco	3	1,58%	0	0,00%
Piauí	0	0,00%	0	0,00%
Rio de Janeiro	5	2,63%	1	1,30%
Rio Grande do Norte	3	1,58%	2	2,60%
Rio Grande do Sul	0	0,00%	0	0,00%
Rondônia	0	0,00%	0	0,00%
Roraima	0	0,00%	0	0,00%
Santa Catarina	2	1,05%	1	1,30%
São Paulo	102	53,68%	50	64,94%
Sergipe	0	0,00%	0	0,00%
Tocantins	1	0,53%	1	1,30%
Brasil	190	100,00%	77	100,00%

Source: Research protocol

Of the abstracts submitted 16 (8%) were private universities and 174 (92%) were from public universities. The average of authors per summary was  $5.63 \pm 1.90$ , ranging from 1 to 10 authors. The total of authors was 1015, of which 720 (70%) were men and 295 (30%) were women. The first author was a man in 70% (134) abstracts and last in 143 (75%) of the articles.

From all the abstracts presented, only 77 (40.52%) were published in scientific journals. Of this total, 14 (18.18%) were published prior to the conference 35 (45.45%) in the same year

that occurred congress, 56 (72.72%) in the period 2011-2013 and 63 (81, 81%) between the Congress and the year 2015. 14 (18.18%) were published in international journals.

Among the works published 50 (64.93%) were from the state of São Paulo, but the Federal District was the only region that managed to publish all papers submitted to the Congress. The ratio of submitted and published works in the Northern region was 17% in the Northeast 37%, in the Midwest 88%, 47% in the Southeast and the Southern region 40%. There was a significant difference between regions ( $p < 0.01$ ), where the northern region was the least published and the Midwest that more published.

The international publications 13 (92.85%) came from the state of São Paulo and one from Minas Gerais. All these publications were from public universities.

### Discussion

The importance of abstracts submitted to medical congresses is well known, since it can fast and easily reach many professionals of a certain field of knowledge<sup>5,11</sup>. Also, up to 63% of the references used in a textbook are from studies that were presented in a congress, despite the lack of data in some abstracts<sup>12</sup>. Nevertheless, the final purpose of a study is to get published in a scientific journal so it can achieve the whole scientific community.

One of the easiest way to assess the quality and influence of the studies that are sent to a congress as abstracts is to evaluate its publication rate. International studies show rates that can range from 34% up to 61%<sup>12</sup>. Nationally, some domestic congresses were able to match these rates<sup>6,11</sup>, but in one Brazilian congress of surgery that occurred in 2003, it got as low as 2,6%<sup>9</sup>.

In our study, we found a publication rate of 40,52%, which is comparable to many international papers and overtakes the Brazilian average, being higher than an 8 years follow up of an orthopedic congress, in which the rate was only 21,7% and was appointed greater than the few domestic studies in the area that existed so far in 2013<sup>12</sup>. So, we cannot discard the possibility of a future increase in the rate found for the congress we assessed, since it can only be considered a four years' rate and it is already shown that there is a 20% average of increase after 6 years<sup>8</sup>.

Despite being above the general expectations for Brazilian congresses and matching international studies, we still found it to be a low publication rate when the whole potential of the abstracts is assessed. This study didn't address the reasons why more than half of the researches presented couldn't reach publication, and it is possible to assume that all studies sent as abstracts have all that it takes to be published, notwithstanding good or bad results, excluding works with methodological mistakes that can be pointed out in the meeting and corrected afterwards. They all are missing

only one of the most difficult parts of a paper, which is writing. Assessing this issue, Sprague *et al.*<sup>13</sup> performed a research to find what was the main cause the studies presented in an orthopedic meeting were not being published, and he found that 47% of the researchers claim lack of time.

Clearly there are other factors that can lead to a reduced publication rate, Fernandes *et al.*<sup>9</sup> assessed that on his research over a surgery meeting and found that apart from the difficulties inherent in our environment, mainly the lack of time<sup>13</sup>, other factors may be present, such as publication of the work in non-indexed journals; presentation of the works most relevant services at international conferences or specialties; liberal political acceptance of abstracts; origin of non-university centers work; presentation of preliminary results at the congress; failure in the methodology, such as typographical errors in the abstracts, papers published with different titles and changes in the names of the authors<sup>9</sup>.

It was also found a high proportion of abstracts from the Southeast region, where São Paulo alone submitted 53.68% of the studies. This scientific productivity gap to the other regions is related to the development of Brazil, and was also found in other medical specialties by other authors<sup>6,8</sup>, Andrade *et al.*<sup>8</sup> claims it to be a reflection of the high concentration of universities and research centers in the region, attracting large investments and incentives, given that this is the most developed region of the country.

Only with an increase in the not only the public, but also in the private support to other regions, this situation could be overcome. Since the absolute majority of submitted abstracts came from public universities, attracting investments in the private sector could be a challenge for the managers of numerous private universities that are emerging in Brazil in recent years, thus improving the education evaluations on them.

Finally, starting from the assumption that all summary should be published, boosting measures may be done by the management of the congress. Some have already been implemented, such as the publication of full papers submitted for oral presentation, but also the encouragement of translations and improvements of the abstracts presented and perhaps the requirement of prior submission to indexed journals of abstracts sent to the congress, as done by some North American congresses<sup>8</sup>.

## Conclusion

The publication rate of the abstracts presented at the XII Brazilian Congress of Experimental Surgery was 40.52%, most from the state of Sao Paulo.

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