Behind the curtain of the European Journal of Physical and Rehabilitation Medicine: internal audit, Impact Factor, and more

S. NEGRINI 1, 2

Background. The European Journal of Physical and Rehabilitation Medicine (EJPRM) is listed in PubMed and Current Contents and in 2010 will have its first Impact Factor; the unofficial one in the last two years was around 1.00, coming from 0.04 in 2004; also the independent SCImago Journal Rate and Cites per Doc (2 years) have increased steadily since 2005. These results in the main bibliometric indexes are due to many reasons, including a careful internal audit to guarantee a continuous quality increase of the journal. The aim of this short paper is to report the results of this audit.

Methods. We continuously register each step of our editorial work to check if there is any problem and where. The evolution of these indicators in the last five years is here analyzed using simple statistical tools.

Results. The EJPRM receives today 12 papers per month and publishes more than 600 pages in 4 issues. The rejection rate is now around 60%, starting from 40% in 2005. The review and publication times are 1.54 (quartiles 0.57-2.79) and 8.4 (5.47-10.93) months, respectively: these parameters have decreased in these years, particularly the last one. Papers are mainly clinically oriented, original papers prevail with a 12% of RCTs, meta-analysis and Cochrane reviews in the last 5 years. The EJPRM has a well balanced coverage of different rehabilitation topics.

Discussion. How these indices have been used to improve quality for the readers and authors is here discussed. The actual literature requires such a process, that is one of the main points for quality continuous improvement of scientific journals.

Conclusion. The growth of the EJPRM in these years comes from the internal audit using the correct quality indicators and working to increase the actual standards. Together with this, also external factors (development of the specialty in our continent and region, European Society and Mediterranean Forum of PRM role, etc.) and other internal ones (e-Pub, Open Access, Special Sections, Awards, Cochrane reviews, collaboration with other journals, etc.) played for sure a role, but the last are in any case mainly led by, and checked through, our audit system.

Key Words: Rehabilitation - Review Literature as Topic - Literature.

The European Journal of Physical and Rehabilitation Medicine (EJPRM) in a way is a “young” journal (having been re-named in 2008) but it comes from a very long tradition (this year, 46th volume since the foundation as Europa Medicophysica in 1964). Journals are usually judged according to bibliometric Indexes that calculate with some parameters the diffusion of articles published by that journal: the most famous is the Impact Factor (IF), produced by ISI Web of Knowledge (ISI), that is a Trade Mark of Thomson Reuters. In 2008 the EJPRM entered the ISI database: consequently, our first IF (2010) will be published mid year 2011, and from now on, all papers will have their IF. It is possible to figure out our actual situation through an unofficial IF, that usually is slightly inferior than the official one: in these years it has steadily grown up from an average of 0.03 in the years 2004-05 to 0.38 (2006-07) to 1.00 (2008-09). Some other
Indexes are published: two of the most famous can be found for free in Internet, calculated in databases wider than that of ISI. One of these indexes is the Cites per doc (2 years), that is the index published by SCImago most similar to the Impact Factor (www.scimagojr.com). The two most considered are the SCImago and the SNIP Indexes (Figure 2); all these indexes confirm the Unofficial IF results we have. All these bibliometric indexes point our attention to the continuous and rapid growth of the EJPRM.

This growth is the result of a lot of elements. Among the others we can consider some external factors like: the general growth of our specialty in Europe, in the Mediterranean area and in Italy; the increase of scientific production in our specialty; the progress of the European Society of Physical and Rehabilitation Medicine under the Presidency of Alessandro Giustini; the collaboration with the European Bodies of PRM (UEMS PRM Section and Board for educational activities); the continuous role of the Italian Society of PRM (SIMFER) under the different presidencies (Giustini, Gimigliano, Fletzer); the National Societies that made of the EJPRM their official journals (EEFIAP, TSPMRS); and others. There are also some EJPRM factors, i.e. the many initiatives that in these years have been proposed, like: Medline/PubMed listing, the e-Pub and Open Access, publication of the European White Book, Special Sections on different topics, the Cochrane Reviews systematic publication, the Cochrane Systematic Rehabilitation Update, the European PRM Journals’ Network, and last but not least debates through letters.

Figure 1.—Variations of the Cites per Doc (2 years), that is the index published by SCImago most similar to the Impact Factor (Figure 1); the two most considered are the SCImago and the SNIP Indexes (Figure 2); all these indexes confirm the Unofficial IF results we have. All these bibliometric indexes point our attention to the continuous and rapid growth of the EJPRM.

Figure 2.—Comparison among some of the main Journals published in Europe in the field of Physical and Rehabilitation Medicine of the SCImago Index (A) and the SNIP (B) indexes. The last one already contains the 2009 values, even if they come from almost 50% of the database. EJPRM: European Journal of Physical and Rehabilitation Medicine; D&R: Disability and Rehabilitation; JRM: Journal of Rehabilitation Medicine; CR: Clinical Rehabilitation.
Finally, there are some other key internal factors, like the work of the Associate and Assistant Editors, the Editorial Board and the Board of Directors, that of the Publisher and its team, and the internal Audit of the journal that we perform regularly since 2004. This latter element is in the tradition of the journal, because we can find the first data in this respect from a work of the former Chief-Editor Franco Franchignoni down in 1994.\textsuperscript{81} moreover, this element is today considered crucial for the quality of a journal.\textsuperscript{12, 82} The aim of this paper is to present the data of our internal Audit in the last five years (2005-2009).

**Materials and methods**

We continuously register each step of our editorial work to check if there are problems and where. The evolution of these indicators in the last five years is analyzed here using simple statistical tools. Moreover we report on the Editorial innovations proposed in this period of time.

**Results**

The paper flow steadily increased reaching the actual 12 papers per month (Figure 3A); the pages published per issue increased as well (Figure 3B). The publication time is around 8 months (Figure 4A): looking at the evolution in time, there was a progressive increase after entering PubMed in 2004 due to the increase of papers; starting e-Pub at the end of 2006 allowed to reduce this time to the actual 8.4 months; in 2008 an increase of time can be seen. In
fact, looking at the different steps of the publication process (review, acceptance, publication, and printing) (Figure 4B) it is possible to see the progressive drop of the main editorial step (review) that maintained stable around two months since 2007, while publication time decreased from 2007 because of the e-pub process. The increase of publication time in 2008 is not due to an increase of the review process, nor of the final acceptance time, but to the publication only.

The review time is detailed in Figure 5A, while the rejection time in Figure 5B. The rejection rate increased from 40% in 2005 to the actual standard around 60%. Clinically oriented papers constitute the majority (Figure 6A), and during the years there was a continuous growth of the original papers versus reviews; a lot of editorial work is made as well (Table I). There is quite a good balance among different topics of PRM specialty (Figure 6B) with a slight prevalence of neurological studies; 72% of papers are immediately clinically oriented: this figures are quite stable with time (Table II). Around 50% of papers on average come from the Mediterranean area (Table III), but in this respect it is possible to see a gradual decrease with time.

**Discussion**

Monitoring the publication time it was possible to catch its increase in 2005 and 2006 (even in front of a decrease of the review time) and develop the initiative of e-pub,\textsuperscript{20} that allowed to control and stabilize it around 8 months: this is a crucial point for any author; the increase of this time in 2008, due to a Publisher problem that precluded for some time the e-pub, testifies its importance.

The rejection time was greatly reduced gradually
introducing from 2007 the pre-review process, that drive to an immediate refusal of papers out of interest for the readership, or of quality or priority too low to allow a publication. This give the possibility to the authors to have an immediate answer, and consequently avoid loosing time (some months) going through the complete formal review process. This is even more important since the rejection rate greatly increased due to the high number of papers received, to the increased quality required by the new journal standing, and to the focus more and more clear of the journal in being clinically oriented (that reduce the relevance of basic science papers, and others).

According to this clinical mission of the EJPRM, the clinically oriented papers are the majority, as well as the original articles. Also reviews have a good role, but the fact that its number almost equal the highest standard papers like RCTs, meta-analysis, systematic and Cochrane reviews is very important in the journal perspective. The representation of the different topics of PRM is quite equilibrated, even if neurological ones seems to prevail.

Quite interesting is the behaviour of the area from where the papers are coming. The Mediterranean area, where the EJPRM is well installed (it is also the Mediterranean Journal of Physical and Rehabilitation Medicine - official journal of the Mediterranean Forum of Physical and Rehabilitation Medicine), counts today for almost 50% of papers. Moreover, very interestingly, the rest of the world prevails over Northern Europe. It is possible to notice that a great increase came from the Mediterranean area as soon as it was known that the EJPRM was indexed in PubMed/Medline, with a top of 75% of papers in 2006. From that moment a gradual decrease
of the Mediterranean area is seen. In the same time, from a minimum in 2007 of 12% of papers from out of Europe and Mediterranean area, in 2008 we have been over 25%, with a redistribution that clearly shows an interest for the EJPRM: a lot of papers have been obviously published from US, as well as from Australia, Canada, and Japan, but also from Iran or Nigeria, just to give some examples.

The new abstract

Another important initiative starting from 2010 (in truth since November 2009) is a new and peculiar structure of the abstract of the papers sent to the EJPRM. This has been organized as follows:

- Background: what is already known and what is not;
- Aim: what was studied
- Design: type of study: RCT, observational, longitudinal, controlled, blinded, other
- Setting: location/facility: inpatient, outpatient, community, other
- Population: who was evaluated
- Methods: what was done
- Results: what was found
- Conclusion: what this paper adds to the literature
- Clinical Rehabilitation Impact: how the study results could improve everyday practice in rehabilitation clinics.

In this way we want on one side to stress the clinical mission of our journal (see the last paragraph, but also the complete organization that is typical of clinical papers), on the other to help authors to understand if the paper is suited to the journal. Obviously, finding difficulties in filling correctly the required paragraphs will make the authors think if sending a specific not clinical paper to the EJPRM is worthwhile. If this will work, we will see through our Audit a decrease of submitted papers as well as of immediately rejected one.

Conclusions

Achievements comes not by chance, but from a team work involving many different people and organizations. The EJPRM is continuously growing and achieving the rank of one of the leading journals in Europe and in the world in PRM. In 2010 the first official IF will be achieved. With this paper we underlined the crucial role of the Internal Audit in this progress with time.

References

19. SIMFER - Società Italiana di Medicina Fisica e Riabilitativa [Homepage]. [cited 2010 March 29]. Available at: http://www.simfer.it/cont_188_1563.pdf


Granger CV. Rehabilitation and outcome measurement: where is Rasch analysis going? Eura Medicophys 2007;43:559-60.


