

GUEST EDITORIAL

RESEARCH IN PHYSICAL AND REHABILITATION MEDICINE IN EUROPE:  
HOW ARE WE DOING?

There is growing awareness that research is important for the development of physical and rehabilitation medicine (P&RM), and the output of research projects in terms of papers in international journals is apparently increasing. Many journals have a backlog (time between acceptance and publication) of more than 12 months, despite an increase in the number of issues and the number of pages per issue.

It is, however, not clear to what extent countries in Europe contribute to this growing body of knowledge in P&RM compared with other continents and which countries contribute to the European output of research papers.

In order to get a better understanding of the European situation I evaluated the nationality of the research groups that published in 4 multidisciplinary P&RM journals in 2004. These journals have the highest score on the Science Citation Index (SCI) publication list of 2004 and also represent national and/or international societies of P&RM.

- *Archives of Physical Medicine and Rehabilitation* is published 12 times a year and is the official journal of the American Academy of Physical Medicine and Rehabilitation.
- *Journal of Rehabilitation Medicine* is the official journal of the European Board of P&RM and is published bimonthly.
- *Disability & Rehabilitation*, the journal of the International Society of P&RM, has 24 issues each year.

Table I. *Impact factors according to Journal Summary List 2004 of Ranking in subject category "Rehabilitation" and number of published papers in 2002–03*

Journal	Impact factor	Ranking	Number of papers
Archives of Physical Medicine and Rehabilitation	1.66	4	345
Journal of Rehabilitation Medicine	1.60	6	72
Disability & Rehabilitation	1.14	8	171
Clinical Rehabilitation	1.12	12	102

Table II. *Country of origin of papers published in 2004 (in %) in the 4 journals*

<i>Archives of Physical Medicine and Rehabilitation</i>		<i>Journal of Rehabilitation Medicine</i>		<i>Disability &amp; Rehabilitation</i>		<i>Clinical Rehabilitation</i>	
USA	48%	Sweden	36%	USA	21%	UK	36%
Canada	11%	Japan	16.5%	UK	13%	Netherlands	16%
Australia	6.5%	Norway/Finland	10%	Sweden	12.5%	Sweden	6%
Netherlands	5%	Netherlands	5%	Netherlands	9%	USA	5%
UK/France/Taiwan	3%	France	5%	Australia	7.5%	Turkey	4%

- *Clinical Rehabilitation* is the official journal of the British and the Dutch Society of Rehabilitation Medicine and produced 8 issues per year.

Table I sets out some characteristics of the 4 journals and Table II shows the topographic origin of the papers published in the journals in 2004. Table III presents the top 12 rankings of the origin of research papers in the 4 multidisciplinary journals.

Forty-three percent of the 625 papers originate from European countries, Israel not included, and the USA and Canada provided 38% of the papers. Australia, New Zealand and the Asian countries represent 16%. The African continent produced only 8 papers in 2004, mainly from South Africa, whereas only 1 paper, came from South America (Brazil).

Table II shows that authors from Europe publish most of their papers in journals that have their roots in Europe. Almost half of the papers published in *Journal of Rehabilitation Medicine* (formerly the *Scandinavian Journal of Rehabilitation Medicine*) come from Scandinavian countries, whereas the UK and the Netherlands produced more than 50% of the *Clinical Rehabilitation* papers. It appears that authors have a preference for regional journals. An alternative explanation is that editors and reviewers have connections with the most productive research groups in their region and unconsciously favour papers coming from these groups.

It is striking that more than 25% of the papers originate from north-west Europe (Table III), while countries such as Germany, Italy, Spain and France seem to be under-represented.

In my opinion this does not necessarily mean that in these countries the quality of research is insufficient or that the number of research projects is low. Most national societies publish a national journal that in most cases is written in the national language. Most probably many interesting papers are submitted to national journals that have less strict review procedures and less bureaucracy than international journals that are high on the SCI publication list. In addition, writing a

Table III. Top 12 rankings of the origin of research papers in the 4 multidisciplinary journals

Country of origin	% of total papers
USA	31
UK	11
Netherlands	8
Sweden	7.5
Canada	7
Australia	6
Italy	2.8
France	2.7
Japan	2.7
Taiwan	2.5
Turkey	2.4
Israel	1.6

research paper in one's native language may be easier than writing in English.

The publication of papers in national journals carries the risk that the majority of these papers cannot be traced by future researchers in the electronic databases. Furthermore, papers in non-English journals cannot be read by researchers who are not familiar with other languages. As a result, the interesting findings of many excellent projects are not included in future projects and the impact factors of these national journals remain low because of a lack of citations.

Some national journals in Europe are aware of this problem and have decided to accept papers in English (*Physikalische Medizin – Rehabilitationsmedizin – Kurortmedizin*), whereas *Europa Medicophysica* changed from Italian to English completely, resulting in acceptance in *Index Medicus* in 2005.

I am convinced that it is our responsibility (to those who finance research, to those who participate in projects, to our patients and to the researchers) to guarantee that the results of research projects can be read all over the world and can be implemented in daily practice or in future projects. Publication in English and in indexed journals should therefore be the main priority of the national societies of P&RM in Europe.

Bridging the gap between research and clinical practice is the main goal of the European Society of Physical and Rehabilitation Medicine (ESPRM), and therefore the ESPRM strongly supports this important development of "globalization" of research projects and publication in P&RM.

H. J. Stam MD, PhD, FRCP  
 President of ESPRM  
 Department of Rehabilitation Medicine  
 University Hospital Rotterdam  
 NL-3000 CA Rotterdam,  
 The Netherlands